

## NATIONAL RESEARCH UNIVERSITY HIGHER SCHOOL OF ECONOMICS

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### SKIPPING OUT ON THE CHECK: INSTITUTIONAL QUALITY, TAX EVASION, AND INDIVIDUAL PREFERENCES FOR SOCIAL POLICY

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# Skipping out on the Check: Institutional Quality, Tax Evasion, and Individual Preferences for Social Policy\*

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#### **Abstract**

Who supports social policy in settings where institutions are weak? Existing work on social policy preferences focuses on the developed world, where governments can credibly commit to policy, tax evasion is constrained, and governments are accountable. In this paper, I relax these assumptions. I argue that weak accountability under poor institutions allow government officials to expend less effort to collect social policy contributions, decreasing expected revenues. For most, this is akin to a dead-weight cost that saps support for redistribution. For those with a comparative advantage in tax evasion, however, this allows for free-riding on the contributions of others and decreases the costs of social policy. As institutional quality declines and tax evasion becomes easier, individuals with a comparative advantage in tax evasion should therefore be more likely to support redistribution. I test this argument using public opinion data from a survey of 28,000 individuals in 28 post-communist countries.

*Key words*: Shadow Economy, Preferences for Redistribution, Public Opinion, Tax Evasion, Comparative Political Economy

*JEL codes*: O15, 017, H53

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#### 1 Introduction

Who supports social policy when institutional quality is weak and the state is unable to commit to uniformly policing tax compliance? Institutions – human constraints on human interaction (North, 1981) – are widely viewed in the literature on political economy as crucial to the ability of governments to make credible promises to citizens (North, 1990, North, Wallis, and Weingast, 2009, North and Weingast, 1989). Existing work on individual-level support for social policy has largely been carried out in the well-developed countries of the OECD, where institutions (as a rule) are strong and where governments can generally be counted on to collect benefits today and deliver them as prescribed by law tomorrow. In much of the developed world, however, states are not well-constrained and government policy is vulnerable to inconsistent enforcement at best and outright rent-seeking by officials at worst. This creates a de facto reality at odds with the de jure expectations of society and depresses the willingness of individuals to engage in economic activity (Acemoglu, Johnson, and Robinson, 2001, North, Wallis, and Weingast, 2009). Although much of the work on the effect of poor institutions has focused on its consequences for economic development, weak institutions have potentially important consequences for social policy, as well. After all, rational support of social policy is predicated on the belief that contributions and taxes paid today will supply the promised benefits tomorrow. Poor institutions challenge these beliefs both via direct channels, such as making benefits contingent on quid-pro-quos, and indirect ones, such as allowing officials to shirk on tax collection or steal revenue.

In this paper, I explore the consequences of one symptom of institutional weakness – tax evasion – for social policy preferences. Concealment of economic activity is a particularly widespread problem in the developing world, where recent empirical work suggests an average of 37% of economic activity is concealed from tax authorities compared to 18.7% in high-income, OECD countries (Schneider, et al., 2010). Intuitively, evasion has profound implications for social policy, since an inability to fully and uniformly collect taxes as prescribed by law saps resources needed to provide benefits. Existing work has primarily addressed issues like tax evasion as a problem

<sup>&</sup>lt;sup>1</sup>For a summary of findings on individual preferences, *c.f.* Alesina and Giuliano (2011). It is worth noting that while existing work has at times problematized the link between *de jure* promises and *de facto* benefits, it has typically done so by pointing to factors external to the state – changing labor demographics, deindustrialization, globalization, etc. – that can call the solvency of social policy systems into question (Hausermann, 2010, Kato, 2003, Pierson, 2001a,b).

of insiders who foot the bill for the welfare state via payroll tax contributions and outsiders who are either uncovered by the welfare state or free-ride on others' contributions to it (Berens, 2015, Mares, 2005, Rueda, 2007). From this perspective, the insiders seek to exclude the outsiders from the welfare state and oppose social policy that would redistribute to them.<sup>2</sup> This paper builds upon this work, but instead focuses more explicitly on how institutions alter individual incentives in ways that make otherwise similar groups behave differently in good versus bad institutional settings. In doing so, it emphasizes that poor institutions create both winners and losers depending on individuals' abilities to take advantage of their pathologies while also demonstrating how poor institutions expand the pool of those who can free-ride on others.

To preview the argument, I begin from the empirical observation that individuals differ greatly in the ease with which the authorities can monitor their economic activity and audit them. By implication, insuring universal tax compliance therefore requires tax authorities to be willing to expend greater efforts in policing some groups than others (Alm, 2012). Drawing on a large body of work on state capacity, bureaucratic discretion, and taxation, I argue that where institutions are weak, low-level officials responsible for tax compliance have fewer incentives to exert the effort needed to do this. Instead, they are more likely to disproportionately target those that are relatively easy to monitor, police, and tax even when inconsistent enforcement hurts revenue (Easter, 2002, Gehlbach, 2008). Building on this work, I ague that weak institutional quality strengthens expectations among groups that are particularly costly to monitor and audit that they will be able to get away with tax evasion. For these groups, the ability to evade taxation creates opportunities to free ride on the social policy contributions of others and to reap benefits disproportionate to actual income. Intuitively, this should increase their support for social policy. Thus, the paper highlights the ways in which poor institutions create new opportunities for some, expanding the population of those who benefit from free-riding on social policy.

To test the argument, I employ a unique survey of 29,000 individuals in 28 post-communist countries and Turkey: the 2007 Life in Transition Survey. Because the argument centers around how changing macro-level conditions should shape the perceptions of individuals with particular characteristics, my research strategy makes use of a logistical hierarchical modeling framework

<sup>&</sup>lt;sup>2</sup>Although recent work suggests a more nuanced story based on partisan cues and labor market vulnerability, see Carnes and Mares (2016).

that captures the conditional effect of country-level factors on individual preferences. In this paper, I focus on data from the post-communist states of Eastern Europe and the former Soviet Union for several reasons. First, all of the countries in the sample faced similar challenges in developing both a tax system and a welfare state after the collapse of their previous Communist regimes (Easter, 2002, Gehlbach, 2008, Haggard and Kaufman, 2008). The subsequent reform process resulted in very broad public debates throughout the post-communist countries about the role of the state, markets, and social policies in the economy, along with more specific discussions about revenue and rampant tax evasion. Consequently, all of these issues are likely to be salient to individuals.<sup>3</sup> Second, the degree of concealed economic activity in the post-communist countries is roughly comparable to that in the rest of the developing world, making it reasonably representative of the problem.<sup>4</sup> Crucial to my identification strategy, however, there is a great deal of variation within this group of countries. Third, the individual level correlates of tax evasion are well-studied in this group of countries, which helps in constructing high quality proxies for individuals' ease of tax evasion. Finally, selecting this region helps to mitigate some forms of unobservable variable bias related to historical legacies, which are important in many contemporary accounts of the welfare state and attitudes towards it (Haggard and Kaufman, 2008, Hausermann, 2010, Hall and Soskice, 2001, Pierson, 2001b, 1994). The common experience of Communism in the LiTS countries helps to mitigate such concerns, because of the common Communist imperative to build a command economy, a universal welfare state, and an accompanying anti-market, statist ideology(Pop-Eleches and Tucker, 2017).<sup>5</sup> Although I do not wish to underplay variation within the Communist countries with respect to pre-Communist historical legacies or the organization of the Communist state itself, there are enough commonalities to heavily mitigate historical legacy concerns.6

This paper provides several contributions to the broader study of micro-level preferences for social policy. Theoretically, it joins a small body of work that draws attention to the importance

<sup>&</sup>lt;sup>3</sup>Major recent contributions by Berens (2015), Carnes and Mares (2013) make a similar argument in the Latin American context.

<sup>&</sup>lt;sup>4</sup>The same study that suggested that the developing world average of concealed economic activity was 37% suggests that the average level for the post-communist countries is about 38%.

<sup>&</sup>lt;sup>5</sup>For a discussion of the Communist social policy system, *see* for example Connor (1997), Deacon (1983), Flakierski (1986), Kende and Strmiska (1987), Milanovic (1994).

<sup>&</sup>lt;sup>6</sup>Although, for important studies demonstrating the importance of pre-communist variation in post-communist outcomes, *c.f.* Darden and Grzymala-Busse (2007), Stark and Bruszt (1998), Stark (1994).

of institutional quality for micro-level preferences Ansell and Samuels (2014), Berens (2015), Mares (2005). Like Berens (2015) this paper draws on the insider/outsider logic first articulated by Rueda (2007) to explicitly derive hypotheses about how free-riding shapes social policy preferences. It departs from existing work, however, by explicitly tying the degree to which individuals can successfully free-ride to poor institutions that disincentive officials from enforcing universal tax compliance. In doing so, this paper focuses theoretical attention on the incentives and expectations of those most prone to free-riding and shows that their preferences for social policy respond to new opportunities opened up by declining enforcement. In doing so, it suggests a potentially important social cleavage in settings, such as the post-communist countries, where tax evasion is rampant and an unexpected potential source of support for welfare state policies. It also potentially problematizes discussions of sequenced taxation and social policy reforms, such as those common in the post-communist space (Ashwin and Clarke, 2003, Chandler, 2004, Cook, 2007). Although eliminating tax evasion can garner support from some businesses and individuals for reformed social policy, it can also lead to backlash from those who suddenly must pay full freight.

Empirically, this paper joins a growing set of studies that moves past the literature's traditional focus on the OECD to examine preferences for social policy in the Post-communist states, specifically, and the developed world, more broadly. It also joins a growing trend in work on social policy preferences that highlights the intersection between macro-level factors and individual preferences. Recent evidence suggests that macro-level factors – including inequality and welfare state design (Finseraas, 2008), ethnicity (Alesina and Glaeser, 2004, Alesina et al., 2001, Alesina and La Ferrara, 2004), and trade openness (Cameron, 1978, Garrett and Mitchell, 2001, Mares, 2005, Rodrik, 1998) – condition individuals' preferences for social policy. It also suggests that where such conditions vary more markedly – as in the developing world – preferences might look quite different, both in the aggregate and within otherwise similar groups in different country settings. My work joins this body of literature by exploring an understudied macro-level determinant

<sup>&</sup>lt;sup>7</sup>The most prominent studies of the Post-communist states are Alesina and Fuchs-Shundeln (2007) and Pop-Eleches and Tucker (2017). Haggard and Kaufman (2008) focus on macro-level determinants of social policy formation and reform in the region, but also discuss the implications of their historical institutionalist theory of social policy formation and reform for individual level preferences in the region. For prominent recent examples of work on the developing world, *c.f.* (Alesina and Giuliano, 2011, Alesina and Glaeser, 2004, Alesina et al., 2001, Alesina and La Ferrara, 2004, Ansell and Samuels, 2014, Berens, 2015, Carnes and Mares, 2014, 2015, Haggard et al., 2013, Ravallion and Loshkin, 2000).

of support for social policy – institutional quality – and how it conditions the preferences of an important, but understudied, group – those who can potentially hide economic activity from the state.

In the next section, I present the theoretical framework of the paper and use it to derive predictions about who supports social policy in settings where weak institutions hinder tax collection. Section 3 introduces the dataset, measures, and empirical strategy. Section 4 presents the main empirical results, along with robustness checks. Section 5 concludes.

#### 2 Institutions, Tax Evasion, and Social Policy Preferences

The individual level determinants of support for welfare state policies have long been central to research on the welfare state, which posits that competing coalitions of like-minded individuals and firms are key to design outcomes (Carnes and Mares, 2014, Cusack et al., 2008, Hall and Soskice, 2001, Iversen, 2005, Pierson, 2001). Welfare state design is incredibly complex, however, and includes considerations about which actors should control and administer programs, which types of risks and losses should be covered, how to pool risks across individuals, and how to fund programs.<sup>8</sup> Typically, micro-level work on preferences for social policy tend to simplify individuals' preferences down to two of these dimensions: redistribution and control.

The first of these, the redistribution, encompasses policy decisions about how the costs and benefits of social policy are distributed amongst individuals and firms. On one end of the spectrum, individuals' contributions and benefits are completely decoupled. Those who pay more (for whatever reason) effectively subsidize the benefits of those who pay less. At the opposite end of the spectrum, one receives benefits commensurate with one's contributions (or lack thereof). In such contributory systems, those who pay more are net beneficiaries. The second, control, is typically defined as constituting preferences over the role of the state in social policy. Along this dimension a fully public system, in which the state takes full responsibility for managing and guaranteeing

<sup>&</sup>lt;sup>8</sup>There is no consensus definition of how to systematically categorize different elements of the welfare state in the literature, despite widespread agreement that welfare state programs are multi-dimensional. For different, recent perspectives on which dimensions of variation are of theoretical interest, *see* Carnes and Mares (2014, 2015), Mares (2003), Wilson Sokhey (2017).

social policy funds, stands at one end of the spectrum and is contrasted with a private system, in which private-sector actors manage funds. As a practical matter, however, these two dimensions tend to be tightly linked in the literature, since systems with a high level of redistribution are highly correlated with strong state involvement in social policy empirically. In the discussion that follows, I therefore focus primarily on preferences for redistribution, presupposing that it goes hand-in-hand with support of state control.

Existing work on individual level preferences tends to explain individuals' support for redistribution based on their assessment of the costs and benefits. In the simplest models, individuals pay a tax proportional to their income that is collected and divided equally among all participants in the social policy scheme (Meltzer and Richards, 1981). Because there is no link between contributions and benefits, the result is that higher-income individuals subsidize the benefits of lowerincome individuals and should (and empirically do) oppose redistribution (Alesina and Giuliano, 2011). Subsequent work on individual social policy preferences has added nuance to the basic model by adding insurance motives. In these models, individuals face some risk of future income loss, which they can use redistributive social policies to insure against. In these models, highrisk individuals are willing to subsidize lower-income individuals today, knowing that they may become low-income individuals themselves tomorrow. While the origin of the risk varies across accounts - job insecurity (Carnes and Mares, 2015), exposure to external trade shocks (Mares, 2005), skill specificity and difficulty being rehired (Iversen and Soskice, 2001), occupational risk (Rehm, 2009), or generalized risks (Moene and Wallerstein, 2001, Rehm et al., 2012) – the desire to protect oneself against them does not. Implicit in both of these perspectives, however, is the notion that contributions to social policy made today will be paid out in full tomorrow. That is, the state can make credible commitments to citizens that it will fully and faithfully collect social policy contributions and taxes from all required to pay them and then pay out benefits to eligible groups as legally proscribed.

<sup>&</sup>lt;sup>9</sup>A good example of this correlation can be found in three-pillar pension schemes, in which the solidaristic pillar is controlled by the state regardless of whether state funds or investment firms manage individual accounts in the contributory pillar (Wilson Sokhey, 2017). For a dissenting view, however, *c.f.* (Carnes and Mares, 2015).

#### 2.1 Institutions and Revenue Capacity

Broader work on the political economy of development has long problematized the ability of the state to make promises to its citizens, particularly within the realm of investment policy. In North (1990)'s classic formulation of the problem, the state would like to encourage its citizens to make investments in order to spur economic development and increase the rents available to it. To do so, the state must reassure investors that it will respect their property rights and allow them to reap predictable returns. The problem stems from the state's monopoly on violence within its territory, which makes it the *de facto* final arbiter of property rights and contract enforcement in its domain (North, 1981, Tilly, 1992). Since it has final say over disputes, the state has strong incentives to expropriate citizens economic activities to generate short term rents (Olson, 2000, 1993), give extra-legal preferences to actors linked to it (Faccio, 2006, Faccio, Masulis, and McConnell, 2006, Haber, 2007, Haber, Maurer, and Razo, 2003), or to alter policies to its benefit as conditions change (Frye, 2010, Kydland and Prescott, 1977). Absent other factors, no one can stop it. One solution is to create institutions – human constraints on human interaction (North, 1990) – that provide the citizenry with tools that can be used to punish the state, or alter its leadership entirely, if promises are not kept. These enable states to provide credible commitments to honor property rights. <sup>10</sup>

Building on these insights, recent work on the political economy of development has further complicated the argument by noting that the states' inability to credibly commit is exacerbated by its relationship to the lower-level bureaucrats responsible for policy enforcement (Markus, 2012, North, Wallis, and Weingast, 2009). Studies of bureaucratic politics have long noted that politicians face a fundamental principal-agent problem vis-a-vis the bureaucracy. On the one hand, the demands and complexities of policy enforcement often require politicians to delegate considerable responsibility to specialized lower-level officials (Huber and Shipan, 2002, Shipan, 2004). On the other hand, specialization provides bureaucrats informational advantages over politicians, which create opportunities to enforce legislation according to their own preferences (Weingast and Moran, 1983). The result can range from enforcement at odds with politicians' intent (McCubbins

<sup>&</sup>lt;sup>10</sup>It is worth noting that contemporary work on institutions and investment has proposed a wide range of potential institutional solutions to this problem, many of which operate under entirely different accountability mechanics. Common to all accounts, however, are tools that lower the costs of collective action against the state and enable citizens (or at least key groups of them) to punish the state. For recent examples, *see* Beazer (2012), Gehlbach and Keefer (2011), Haber (2007), Haber, Maurer, and Razo (2003).

et al., 1987), whether overly lax or overly stringent, or outright rent-seeking (Beazer, 2012). As with the broader literature on the political economy of development, however the bureaucracy can be reigned in by imposing constraints on it. The most important of these are institutions that either incentivize politicians to pay the steep monitoring costs necessary to police the bureaucracy themselves, such as political competition (Beazer, 2012), or mechanisms that enable politicians to outsource monitoring costs to self-interested third-parties (McCubbins et al., 1987, McCubbins and Schwartz, 1984).

While the inability of the state to credibly commit to policies and control lower-level officials has many implications for social policy preferences, in this paper I focus primarily on their implications for tax enforcement and expectations about the revenue base of social policy. Regardless of its specific form, tax collection is a costly endeavor that requires a great deal of time and effort to enforce. Tax payers must be identified, their required payments calculated, and records kept. To deter evasion, the state must also assign officials to monitor tax payers, audit their records and accounts, and punish them for hiding potentially taxable economic activity (Allingham and Sandmo, 1972, Alm, et al., 2014).

Not all tax payers are equally easy to monitor, however. Recent studies of tax evasion suggest a great deal of heterogeneity in the ability of individuals and firms to hide economic activity, resulting in variation in the amount of effort government officials must put into policing evasion (Alm, 2012). For example, those whose economic activities are based on fixed capital or easily tracked inputs and outputs, such as heavy industry, large-scale agriculture, or extractive sectors, are much easier for tax officials to monitor and tax (Easter, 2002, Gehlbach, 2008, Haber, Maurer, and Razo, 2003). Conversely, economic activity based on mobile assets, human capital, and more opaque inputs and outputs, such as small firms, the retail sector, and service providers, require costlier effort to monitor. Similarly economic activity characterized by cash transactions and high employee turnover are also difficult for officials to monitor (Gimpelson and Zudina, 2012, Ovtcharova and Popova, 2001, Yakovlev, 2001). Thus, uniform enforcement of taxation requires that bureaucracies be willing to pay the costs to monitor, audit, and punish all economic actors subject to *de jure* taxation, even if doing so among groups with characteristics that make it easier to obfuscate economic activity is disproportionately costly.

Recent work on the political economy of taxation in Eastern Europe and the former Soviet Union suggest states are not always willing to pay disproportionate costs to police tax evasion, however. These studies tend to find that weak institutions both perpetuate and are perpetuated by tax systems that disproportionately rely on easily taxed, heavy industries and require little effort on the part of lower-level officials to tax more difficult to monitor economic actors (Easter, 2002, Gehlbach, 2008). By implication, therefore, weak institutions are associated with more difficulty in taxing economic actors that are hard or costly to police. Similarly, older studies on state capacity tend to link the increasing sophistication and institutionalization of bureaucracies to the need to generate revenues in complex, developing economies with increasingly difficult to monitor economic actors and to compete on the international stage (Downing, 1992, Tilly, 1992, 1975, Thies, 2005, 2004).

#### 2.2 Institutions, Revenue Expectations, and Social Policy Preferences

If weak institutions are associated with greater difficulties in insuring that tax enforcement officials are uniformly applying laws and taxing all economic actors, what are the implications for social policy preferences? As noted at the beginning of this section, existing accounts of support for redistribution, specifically, and social policy, generally, are premised on the idea that *de jure* expectations about benefits are met *de facto*. The failure of tax authorities to fully and uniformly collect revenue from all tax payers, however, implies just the opposite. Collecting fewer taxes *de facto* than *de jure* decreases revenue and, by implication, individuals' benefits. Much of the formal literature on support for social policy includes a dead-weight cost term intended to capture exogenous losses, whether due to work disincentive effects, inefficiencies in the transfer technology, administrative costs, etc.<sup>11</sup>. Mares (2005) goes one step further and explicitly models this cost as a failure to uniformly enforce tax laws, resulting in lower revenues and eroding individuals' benefits. In her model, institutions act as a dead-weight cost that decreases support for social policy amongst the general populace. Building on this model, Berens (2015) makes a more nuanced prediction, arguing that social groups who pay for social policy benefits will want to exclude both groups that

<sup>&</sup>lt;sup>11</sup>See Alesina and Giuliano (2011), Iversen and Soskice (2001), Meltzer and Richards (1981), Moene and Wallerstein (2001), etc.

can free-ride on their contributions and those who are likely to disproportionately claim benefits. For such groups, poor institutions again act as a dead-weight cost. Taken together, this suggests the following, which I refer to as the "dead-weight" hypothesis:

**Hypothesis 1.** As institutional quality decreases, the probability that the average member of the populace supports redistributive social policies decreases.

At the same time, existing work has been less explicit about modeling the preferences of those who engage in tax evasion. Logically, where social policy is heavily redistributive, the link between contributions and benefits is weak. Consequently, those who can avoid contributons face few direct penalties to doing so and free-riding becomes an attractive way of reaping disproportionate benefits. Where contributions and benefits are more tightly linked and redistribution is lower, however, tax evasion is less profitable. While there is some utility to shielding income from taxation, doing so means a direct loss in redistributive benefts. Thus, *ceteris paribus* one would expect that individuals and firms with characteristics that make it easier to evade taxes will be more supportive, *ceteris paribus*, of systems with a high degree of redistribution. Crucially, however, these individuals should only support redistribution *where they can utilize their characteristics to actually evade taxes*.

Institutional quality comes into play, because it helps to dictate individuals' expectations about their ability to actually evade taxes. Where institutional quality is weaker and the bureaucracy has less incentive to undertake costly enforcement, we would expect that individuals with characteristics that make them more difficult to monitor will be more confident in their ability to hide income. As a consequence, they should be more supportive of redistribution, because they know they will be able to potentially reap benefits from it without having to pay their fair (and legally prescribed) share of taxes. As institutional quality improves, however, the likelihood that the authorities will undertake costly enforcement actions will increase. Consequently, we would expect individuals' whose characteristics make the more costly to monitor to be less confident in their ability to free-ride on redistribution by avoiding taxes. Because this means they will be paying more, we would

<sup>&</sup>lt;sup>12</sup>This prediction becomes more complicated if tax evaders are particularly wealthy and benefits depend on contributions. In these cases, it might be better to forgo tax evasion and make contributions in order to reap the high returns on one's income. For an interesting discussion on cleavages in the informal sector, which shares many characteristics with tax evaders, and how this relates to income *see* Carnes and Mares (2014, 2015).

expect them to be less supportive of social policy where institutions are strong. In this view, therefore, poor institutions are enablers that allow certain individuals to free-ride on social policy more successfully. I refer to this as the "enabler" hypothesis. Thus, we would expect:

**Hypothesis 2.** As institutional quality decreases, the probability that those with facility in evading taxes support redistributive social policy increases.

#### 3 Data Sources and Methodology

To test the hypotheses proposed above, I make use of the 2006 Life in Transition Survey (LiTS), which covers 29,000 respondents conducted by the European Bank for Reconstruction and Development across 29 transition countries in 2006.<sup>13</sup> In the analysis that follows, I drop Turkey from the analytical sample to focus only on those 28 countries which experienced state socialism and therefore have comparable recent economic institutions, political regimes, and historical legacies (Pop-Eleches and Tucker, 2017).<sup>14</sup> The LiTS sample was constructed from a randomly selected group of households in each country. Within selected households, the nominal head of household was asked questions about wellbeing, assets, and economic satisfaction. Afterwards, a randomly selected household member over the age of 18 was asked to give responses to additional questions. In my main analysis, I take the respondent who answered questions at this second stage as the unit of analysis.<sup>15</sup>

To test the hypotheses laid out in the previous section, I use the following question from the LiTS 2006 survey as my main dependent variable:

Do you think the state should be involved in the following- Reducing the gap between the rich and

<sup>&</sup>lt;sup>13</sup>LiTS 2006 covers Albania, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Estonia, Former Yugoslav Republic of Macedonia, Georgia, Hungary, Kazakhstan, Kyrgyz Republic, Latvia, Lithuania, Moldova, Montenegro, Mongolia, Poland, Romania, Russia, Serbia, Slovak Republic, Slovenia, Tajikstan, Turkey, Ukraine, Uzbekistan. Due to data limitations on the structure of its social policy system, Mongolia is not included in most specifications. Similarly, Bosnia and Montenegro have limited coverage for many of the macro-level control variables in this analysis and are similarly dropped in most specifications.

<sup>&</sup>lt;sup>14</sup>In the analyses presented below, adding Turkey back into the sample does not substantively alter the results. Results are available upon request and will be included in the appendix in the final version. I discuss robustness to controlling for variation in the nature of Communist regimes *within* the post-Communist sample in section 4.1.

<sup>&</sup>lt;sup>15</sup>For more information on the methodology of the survey, including information on PSU selection, selection of respondents from selected households, and interviewing techniques, *see* EBRD (2007), Synovate (2006).

#### the poor.

- 1) Not Involved
- 2) Moderately Involved
- 3) Strongly Involved

This question cleanly captures preferences over both who controls social policy and the degree of redistribution it offers, which provide a good test for the theory outlined in the previous section. Figure 1 summarizes responses to the survey instrument across countries. Looking at the sample as a whole, it is interesting that the overwhelming majority of respondents – 68.72% – believe in strong state involvement in redistribution, whereas only 26.67% believe in moderate state involvement. Fuller summary statistics for this measure (and all others in this paper) can be found in Appendix Table A.1.

It is worth noting, however, that the instrument above has two potential flaws. First, because the instrument does not seperate out preferences for state control from those over redistribution, results may be difficult to interpret. Respondents who believe the state should not be involved in redistribution may oppose redistribution in general or may support it so long as it is not carried out by the state. This said, in my analysis I construct a binary variable that contrasts those who strongly support state involvement with redistribution with all others. This both helps to evade ambiguity in interpretation and hones in on the most interesting variation for the purposes of my theory. Second, this question wording also does not capture trade-offs between an increasing role of government programs in narrowing the inequality gap and the increasing costs of such programs. As Kenworthy and McCall (2008) point out, respondents might feel differently about redistribution if they believe they are likely to bear the tax burden to fund it. My framework predicts that variation in preferences for redistribution follow from heterogeneity in subjects' expectations about the net costs and benefits, however. Consequently, the omission of cost considerations is less problematic, since individuals will only consider their contributions and net losses from poor institutions in cases where this is truly important to them. If anything omitting cost considerations from the

<sup>&</sup>lt;sup>16</sup>Results are nonetheless robust to using the original variable and multi-level ordered probit analysis. These tests are discussed in section 4.1.

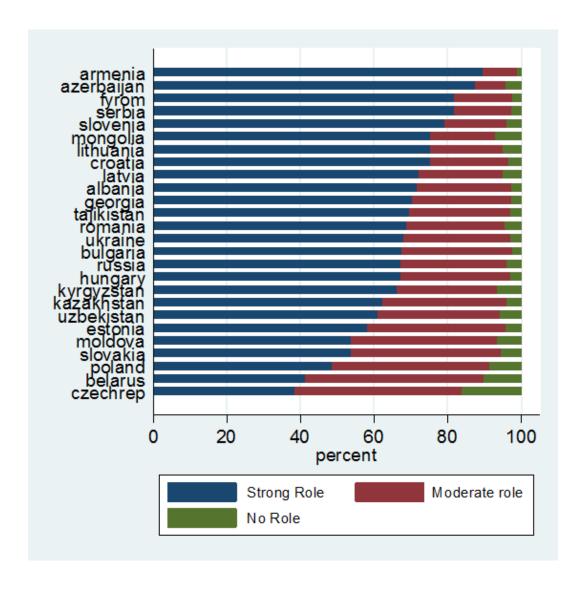


Figure 1: Preferences for a State Policy (LiTS)

question should flatten responses and introduce bias against finding a result, since respondents are less likely to focus on costs and benefits absent priming them to think of costs.

#### 3.1 Measuring Ease of Tax Evasion

Testing the central argument of this paper – as institutional quality declines and tax evasion becomes easier, those best poised to take advantage of it will increasingly support social policy – requires the interaction of two sets of independent variables. The first set of variables should capture country-level variation in the ease of tax evasion, while the second should capture individuals'

ability to evade taxes.<sup>17</sup> At the country-level, there are unfortunately no systematic, cross-national data on the extent to which governments are able to successfully collect all legally prescribed taxes on economic activity. Instead, I make use of a relatively straightforward proxy measure developed by Schneider, et al. (2010) to attempt to estimate the size of the informal economy, defined as the share of all business activity not reported to the government in total GDP. Schneider, et al. (2010) make use of data on government size, labor market characteristics, and government effectiveness provided by the World Bank to fit a MIMIC (Multiple Indicators Multiple Causes) model that predicts the share of unreported business activity in the total economy for each of the 151 countries in their dataset.<sup>18</sup> It follows that the larger the share of unreported activity, the less effective the government is at collecting tax revenue and the easier it is for individuals to successfully dodge their tax obligations. For ease of interpretation and comparability with my other measures, I rescale the variable so that it measures the share of reported business activity in the overall economy. Therefore higher values imply better institutions.

In addition to the Schneider measure, I also rely on two additional, more indirect, measures of the ease of tax evasion in my main analysis. Recall that work on tax evasion has long argued that compliance hinges on the ability of the state to credibly threaten to audit or punish potential evaders (Allingham and Sandmo, 1972, Alm, et al., 2014). Although politicians can enact laws to establish systems capable of accomplishing this *de jure*, *de facto* enforcement of these laws and the day-to-day operation of these systems lies in the hands of lower-level bureaucrats. As discussed in section 2 the specialized nature of bureaucracy enables these lower-level officials to enforce laws in ways that align with their preferences, rather than those of the state. Given variation in the difficulty of enforcing tax laws, numerous scholars have noted *ceteris paribus* low-level officials are more likely to turn a blind eye to tax evasion (Easter, 2002, Gehlbach, 2008). Although this literature (and broader work on bureaucratic discretion) has identified a number of ways to compel lower-level officials to enforce policy as intended by politicians, most of these solutions are dependent on strong institutions designed to constrain opportunism by both low-level officials and their superiors

<sup>&</sup>lt;sup>17</sup>Summary statistics, sources, and descriptions for all variables used in the analysis can be found in Table A.1.

<sup>&</sup>lt;sup>18</sup>See Schneider, et al. (2010) for details on the procedure and a discussion of its limitations relative to other techniques. I select the 151 country measure, despite its lower quality, in order to preserve the maximum number of countries in my estimation. Selecting the higher quality 120 country measure would result in losing 6 countries, bringing my sample down to 20 second-level units.

(Beazer, 2012, McCubbins et al., 1987, McCubbins and Schwartz, 1984). Thus, we would expect that tax evasion is associated with weak institutional constraints on low-level bureaucrats.

The above discussion suggests that a good proxy for the ease of tax evasion would be a measure that reflects the quality and consistency of policy implementation and the ability of the state to police tax evasion. To capture this, I make use of two primary measures. The first is the government effectiveness sub-component of the World Bank's World Governance Indicators project Kaufmann et al. (2010). This index was constructed using a weighted aggregation of measures of the quality of public and civil services, their degree of independence from political pressure, the quality of policy implementation, and the state's ability to credibly commit to policy. Conceptually, this measure neatly encapsulates the inconsistent tax policy enforcement that would naturally arise from a poorly constrained bureaucracy and enable tax evasion. The second is a related measure from the World Governance Indicators project – the rule of law index – that captures confidence in the law and the extent to which actors abide by it. Again, conceptually this measure reflects the extent to which actors believe policy in general – and by extension tax policy – will actually be enforced by the lower-level bureaucracy, informing beliefs about how easy tax evasion should be to get away with. Whereas the government effectiveness indicator focuses on the government and bureaucracy as enablers of evasion, however, the rule of law indicator focuses on the social propensity to cheat or break the law more broadly. Both are important, albeit different, proxies of constraints on low-level bureaucrats.

In order to construct the measures discussed above, I make use of values averaged from 2000 to 2005 to capture near term dynamics. Figure 2 presents a series of scatter plots with preferences for social policy along one axis and the three measures of ease of tax evasion along the other. Interestingly, none of the plots suggests an unconditional relationship between ease of tax evasion and country-level support for social policy. If ease of tax evasion alters popular opinion, therefore, it is likely to do so only amongst specific sub-populations within countries, in line with the hypotheses proposed above.

Turning to individual-level, LiTS 2006 unfortunately does not provide direct questions on tax evasion, making it difficult to assess individuals' ability to engage in it. Instead, I draw on an extensive literature on tax evasion in economics to identify individual-level characteristics that should be

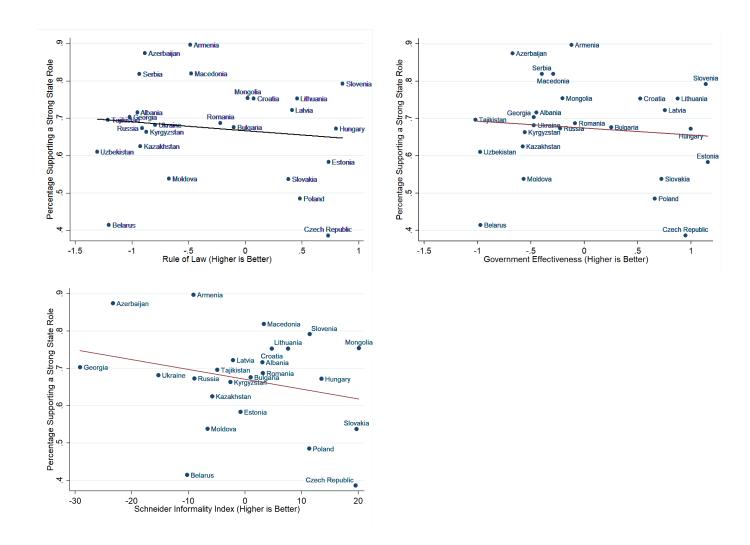


Figure 2: Support for Social Policy and Institutional Quality

good proxies for the ability to evade taxes.<sup>19</sup> Much of this work departs from the premise that many groups have a comparative advantage in tax evasion that stems from difficulty in detecting their true economic activity. Consequently, the state has to pay higher auditing costs in order to successfully detect and punish evasion by these groups. Faced with these costs, the state – particularly in settings where institutional quality and constraints on officials are weak – is more likely to ignore such groups and focus revenue collection on the easily monitored (Easter, 2002, Gehlbach, 2008). Absent the threat of monitoring by state authorities, these groups face fewer risks to evading taxes and are more likely to do so (Alm, 2012). In this chapter, I draw on three characteristics commonly associated with the ability to evade taxes in empirical work specific to the post-communist states

<sup>&</sup>lt;sup>19</sup>For a useful review, c.f. Alm (2012).

and more generally.

The first proxy measure is individual is self-employment. Theoretically, being self-employed provides a large advantage in tax evasion, because most self-employed individuals in the post-communist states engage in small scale business activities and mostly cash transactions. These features of their business make it difficult for the state to monitor their activities closely and give the self-employed the ability to easily hide income and profits to avoid taxes. The self-employed are also unlikely to sign formal employment contracts, further insulating them from taxes. Empirical work has provided ample evidence for this relationship, documenting strong associations between self-employment and tax evasion even in countries understood to have high quality, highly constrained bureaucracies (Engstrom and Holmlund, 2009, Feldman, 2007, Johansson, 2005, Kleven et al., 2011, Pissarides and Weber, 1989), the post-communist countries (Gorodnichenko et al., 2009, Slonimczyk, 2012), and developing economies more broadly (Pietrobelli et al., 2004).

My measure of self-employment is a dummy variable equal to one if a LiTS respondent reported that they have been self-employed at any time during the prior year. All told 8.2% of LiTS respondents reported that they were self-employed. It is important to note that one potential issue with my use of this variable as a proxy for ease of tax evasion is that numerous studies of Latin America suggest that the self-employed have a precarious economic position. Thus their preferences are driven more by elevated risk than the ability to free-ride (Berens, 2015, Carnes and Mares, 2015, 2016). In order to better understand this group relative to the overall sample of LiTS respondents, Table B.2 in the Appendix provides summary statistics comparing the self-employed to the general populace and to other workers. On the whole, this group tends to be younger, more male, better educated, (on average) in a higher income decile than the rest of the population, and to have been involuntarily fired at a slightly higher rate than both groups. Interestingly, these trends are in roughly keeping with empirical work in the post-communist countries that shows that the self-employed were overall winners of the transition to a market economy, since they were able to profit from filling niches never envisioned by the plan (Earle and Sakova, 2000). At the same time, there is little evidence that this group's employment and income situation was more precarious than

<sup>&</sup>lt;sup>20</sup>For each occupation, respondents were asked "In this job did/do you work?" with response categories "1) For wages (worked for an employer)", "2) As self employed or for a company you partly or fully own", or "3) As an independent farmer". Respondents were coded as self-employed if they responded with the second category.

the average population. Once one controls for unemployment risk (see below), it should therefore be a reasonable proxy for ease of tax evasion.

Second, I also make use of a well-documented relationship between characteristics of particular economic sectors and ease of tax evasion. Straightforwardly, work on tax evasion in economics has long found strong empirical associations between sectors with relatively high asset mobility, high turnover, and a propensity towards cash transactions and tax evasion (Fiorio and D'amuri, 2005, Gimpelson and Zudina, 2012, Yakovley, 2001). Crucially, however, this relationship only holds for firms below a certain employment threshold, since the larger a firm grows the easier it is to monitor (Easter, 2002, Gehlbach, 2008). To capture this relationship, I created a dummy variable equal to 1 for individuals who report working in either the construction or retail sectors, which best exemplify the characteristics noted above, and work for firms with less than 16 employees.<sup>21</sup> All together, this group represents approximately 6% of all respondents. As Table B.2 indicates, individuals in this group tend to be younger than the average member of the population and the average employed person. Those in evasive sectors are also more likely to be male, (on average) in a higher income decile, and to have been fired more often than both the broader populace and the employed. Interestingly, however, these values are roughly in line with those of the self-employed. Again, there is little evidence that this group's position was precarious, which is important for interpreting this variable as a proxy for ease of tax evasion rather than insecurity. In what follows, I refer to this group as the evasive sector.

Finally, I also draw on work linking certain types of occupations to the ease of tax evasion. Recent empirical work has highlighted relatively skilled, high income occupational groups such as engineers, doctors, financial services agents, accountants, lawyers, and business owners as being particularly likely to hide income (Artavanis, Morse, and Tsoutsoura, 2012). Theoretically, this likely stems from the ability of these individuals to selectively alter or forgo record-keeping, enabling them to create a weak or incomplete paper trial that significantly complicates auditing (Kleven et al., 2011). Such groups have particularly strong incentives to hid their income in post-communist settings, since they benefited greatly from the wage decompression and deregulation

<sup>&</sup>lt;sup>21</sup>The only LITS question on the size of one's employer only provides three size categories: 1-15 employees, 16 - 100 employees, or more than 100 employees. I select the smallest. I discuss robustness of my analysis to different coding rules below.

of private practices that accompanied the transition to the market economy (Brainerd, 1998, Milanovic, 1999, Svejnar, 1999). Just as importantly, such individuals also had significant bargaining power and could negotiate for "black cash", annuities, or other wage structures that minimized tax contributions from their employers (Yakovlev, 2001). To code occupations with such advantages in tax evasion, I used a LiTS question asking individuals to place themselves into occupational categories for each of their jobs. My measure was a simple dummy variable indicating whether the respondent currently works in a high income, low paperwork occupation or as a manager or businesses owner: occupations that lend themselves to evasion.<sup>22</sup> For simplicity, I refer to this group as professionals for the remainder of this chapter.

Approximately 11% of respondents are professionals. As with those in evasive sectors and the self-employed, this group tends to be younger than the population or employed averages, although the percentage of males in this group (43%) is comparable to that of the populace as a whole (see Table B.2). Interestingly, the average income decile for this group is much higher than average for the other categories (including self-employed and those in the evasive sector). This group is also much less likely to have been involuntarily fired than any other group and much more likely to be highly educated. Again, this suggests that this variable is a better proxy for tax evasion than for labor market or economic vulnerability.

#### 3.2 Modeling Strategy

Because my main argument implies an interactive relationship between an individual-level measure (characteristics associated with tax evasion) and a country level one (ease of tax evasion), I make use of Multi-level Hierarchical (MLH) logit models in my main specifications.<sup>23</sup> MLH models are appropriate for nested data (individual x country-level interactions), because they can simultaneously estimate the direct effects of variables of interest at both levels, their interactions,

<sup>&</sup>lt;sup>22</sup>The occupational categories for this group roughly correspond to groups 1 and 2 in the Standard Occupational Classification 2000 and include professionals such as engineers, mathematicians, architects, computing professionals, medical doctors, dentists, pharmacists, lawyers, accountants, authors, and similar occupations, as well as managers and firm owners. Note that in the specifications below, results are robust to the exclusion of the first group – managers and business owners – as well as controlling for self-employment. More information on these categories and the validity of occupational self-reporting as compared to alternative ways of assigning respondents to occupations can be found in Denisova et al. (2009).

<sup>&</sup>lt;sup>23</sup>Robustness of my results to alternative modeling strategies are discussed below.

and a vector of control variables at both levels. Crucially, however, they also provide some defense against omitted variables by including country-varying intercepts and random effects. Finally, an MLH approach makes fewer assumptions about the correlation of the error terms across macrolevel units (Gelman and Hill, 2007, Stenbergen and Jones, 2002).<sup>24</sup> My main specifications take the form:

$$Y_i c = \alpha_0 + \gamma_1 institutions_c + \beta_1 evasion_i + \rho_1 evasion_i * institutions_c + \gamma_2 Z_c + \beta_2 X_i + \xi_{ic} + \eta_c + \epsilon_i$$
 (1)

Where  $Y_i$  is a binary variable based on the instrument on preferences for a state role in social policy introduced in section 3. The variable takes on a value of 1 if individuals support a strong state-role in closing the gap between the rich and the poor (e.g. a more redistributive, state-run system) and 0 otherwise. Institutions and evasion are the proxies for institutional quality and the ability to evade taxes discussed in section 3.1,  $X_i$  is a vector of individual-level control variables for individual i, and  $Z_c$  is a vector of country level control variables for country c (both described below). The parameters  $\xi_{1c}$ ,  $\eta_c$ , and  $\epsilon_i$  represent random slopes on the individual measure of evasion needed for the cross-level interaction to be identified properly, country specific varying intercepts, and the individual level error term, respectively. Following Gelman and Hill (2007) this equation can be thought of and interpreted as a standard regression, albeit one with six sets of predictors and three error terms. In this equation, the main quantities of interest are the effect of institutional quality  $\gamma_1$ , which is used to test the "dead-weight" hypothesis  $(H_1)$  and the three terms comprising the interaction of individual level characteristics associated with evasion and institutional quality,  $\gamma_1$ ,  $\beta_1$ ,  $\rho_1$ , which are used to test the "enabler" hypothesis  $(H_2)$ 

The vector of individual level controls,  $X_i$ , includes a battery of variables designed to take into account prominent predictors of support for social policy. The most straightforward of these

<sup>&</sup>lt;sup>24</sup>For an in-depth discussion of this technique for nested survey designs, as well as a comparison of their appropriateness vis-a-vis more traditional techniques, *see* Leoni (2009).

<sup>&</sup>lt;sup>25</sup>I recode in this way due to the ambiguity in interpreting the middle category of the original question. These responses may reflect a preference for less redistribution, but a desire for state control if they cannot be avoided. They may also reflect desire for redistribution but qualms about the state. For the purposes of testing my argument, the differences between these two groups are less theoretically interesting than comparison to those who favor strong state involvement and therefore likely in favor of both redistribution and state control. Robustness checks using ordered probit models nonetheless produce similar results.

<sup>&</sup>lt;sup>26</sup>For more on the logic behind the formulation of the model, see Gelman and Hill (2007).

include age, gender, education level, household size, a dummy for non-working pensioners (i.e. pensioners with no other employment), a dummies for respondents in urban and rural localities (metropolitan respondents are the reference category), and a dummy variable equal to one if the individual considers herself a member of a minority group. Controlling for ideological bias is difficult with LiTS data, because it does not include instruments such as party affiliation. Instead, I include a measure that is appropriate to the post-communist context: respondents' evaluation of the fairness of re-privatization. Previous work has argued both that reprivatization is a critical component of economic reform (Megginson, 2005), and has also used opinions towards it as a gage for pro-market sentiments (*c.f.* Berinsky and Tucker (2006), Denisova et al. (2009)). To the extent that attitudes towards re-privatization reflect pro- or anti-market bias, this allows us to account for ideology.

I also attempt to control for different forms of risk faced by individuals. To capture work related risks, I make use of a dummy variable indicating current unemployment, as well as a variable that captures the number of times individuals report having been fired since 1990 (after the transition to the market).<sup>27</sup> Although imperfect, these variables capture individuals' revealed risk of unemployment and somewhat proxy for the precariousness of individuals' employment. Another major source of work related risk stems from occupational risk (Iversen and Soskice, 2001, Rehm, 2009, Rehm et al., 2012). Unfortunately, LiTS does not offer good proxies for occupational risk or those related to individuals' skill profile. To capture this, if imperfectly, I include a dummy variable equal to one if an individual has worked as a skilled professionals (doctors, lawyers, etc.) in all my specifications. The transition from Communism created massive demand for such individuals, as well as demand for individuals with high-quality human capital able to adapt to market demands. As a consequence, professionals drove wage decompression during transition and were in high demand (Brainerd, 1998, Earle and Sakova, 2000, Milanovic, 1999, Svejnar, 1999). One would therefore expect such individuals' skills to be portable, decreasing their risk.<sup>28</sup> Finally, I also include a variable that captures individuals' self-assessment of their health as an additional control for health related risks.

<sup>&</sup>lt;sup>27</sup>This measure is constructed thanks to a set of questions asking respondents to list all employment they have held since 1990 and characteristics of this employment, including whether and how the individual was terminated.

<sup>&</sup>lt;sup>28</sup>Although this conception clearly differs from the way risk models such as (Iversen and Soskice, 2001) conceive of skills, it is the only available measure.

At the country level, I include two key control variables: the logged country average of GDP per capita for the five years prior to the survey (2000 – 2005) and an index of the generosity of social policy.<sup>29</sup> While the former is straightforward, the latter is an update of the index of social policy (pensions, healthcare, unemployment, and disability insurance) first introduced by Mares (2005) and captures both the scope of social policy coverage and the degree to which contributions and benefits are linked in each country in the year the LiTS survey was conducted (2006).<sup>30</sup> By controlling for pre-existing social policy (both the scope and the generosity of coverage), it is possible to partially separate out attitudes towards state control of social policy from attitudes towards the adequacy of existing social policy programs, as well as to control for policy variation that may *prima facia* complicate free-riding. Summary statistics, descriptions, and sources for all individual and country-level variables, as well as the dependent variable and the main independent variables of interest can be found in Appendix Table A.1

Before turning to the analysis, it is worth noting that the design outlined here potentially suffers from various causal inference problems. At the most basic level, one may worry that country level unobservable factors may be jointly shaping preferences for social policy (at the individual level) and macro-level institutiona quality, thus leading to a spurious correlation in any regressions testing this relationship. Leading potential explanations for this include the legacies of Communism (both for countries and individuals), inequality, rentier state dynamics, government spending patterns, or the nature of economic reform (Denisova et al., 2009, Ross, 2001, Wilensky, 1975). While identifying a direct effect of institutional quality may be difficult due to these factors, the conditional hypothesis advanced here – that individuals able to engage in tax evasion are more likely to support social policy in settings with weak institutions – faces fewer such problems. Identification of this conditional, cross-level effect is possible so long as we assume that these issues effect both types of responses (those able to evade and general members of the populace) in the same ways within a given country. If this is the case, then one can interpret my main specification (1) as an estimate similar to a differences-in-differences approach between those who can evade taxes, on the one hand, and the populace at large, on the other, across settings with good and bad

<sup>&</sup>lt;sup>29</sup>The small number of countries in the sample suggests caution in including a larger number of macro-level controls, therefore I do not do so in my preferred specifications. Nonetheless, in section 4.1 I test the robustness of my results against a wide array of additional country-level variables.

<sup>&</sup>lt;sup>30</sup>Details on the construction of the index are presented in Appendix C.

institutions (*c.f.* Denisova et al. (2009)). This estimate should be unbiased, so long as the assumption holds. Nonetheless, I address the robustness of my main results to the most plausible of these confounders in Section 4.1.

#### 4 Results

Table 1 presents the main results of the paper, which generally support the notion that support for social policy among those most capable of evading taxes rises as institutional quality (and the likelihood of getting caught) declines. For the sake of parsimony, estimates for the individual and country-level control are omitted. Full results can be found in Table D.3 of the appendix.

Models 1.1 – 1.3 begin by examining my first proxy measure for the individual's ease of tax evasion: the self-employment dummy. Of note, in all three models the self-employment dummy is negative and statistically significant (p<.01), implying that the self-employed ceteris paribus are less likely to support a strong government role in social policy. Focusing on the cross-level interactions of interest, the co-efficients for the interaction between self-employment status in the Schneider measure (Model 1.1), the Government Effectiveness Index (Model 1.2), and the Rule of Law Index (Model 1.3) are all negative and significant as expected. This suggests that as institutional quality decreases, support for social policy amongst the self-employed increases, creating a preference cleavages between them and the general populace. This finding is consistent with the "enabler" hypothesis  $(H_2)$ , since it suggests that individuals who are particularly well-positioned to free ride on social policy are more likely to support redistribution in settings with poor institutions, where free-riding is easier to get away with. Conversely, they are less likely to support such social policy in settings with good institutions, where it is harder. Interestingly, however, these specifications provide no evidence of a direct effect of institutional quality suggested by the "dead-weight" hypothesis  $(H_1)$ : the signs for the main effects of all three measures of institutional quality are mixed and fail to reach statistical significance.

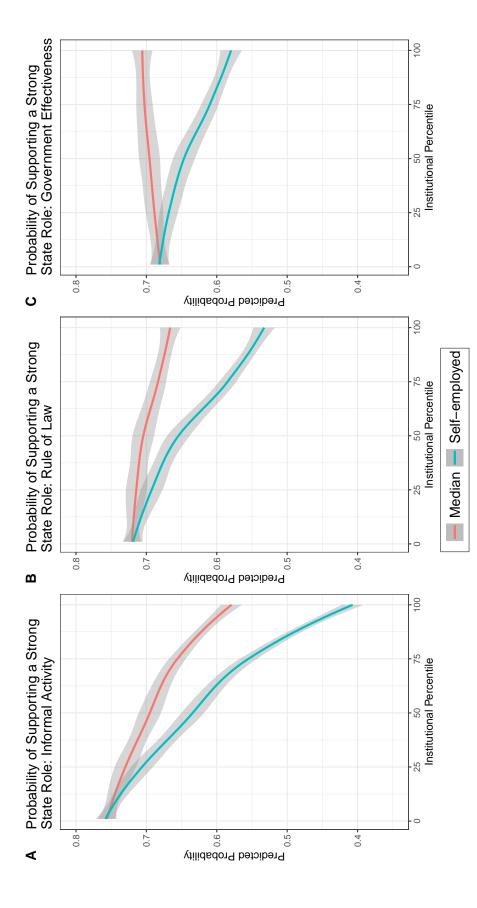


Figure 3: Substantive Effects of Self-Employment at Different Levels of Institutional Quality

Figure 3 provides a sense of the substantive effects of being self-employed at different levels of institutional quality to illustrate the "enabler" hypothesis visually. Using the results of models 1.1 - 1.3, it contrasts the predicted probabilities of support for social policy between two otherwise identical individuals who differ only in their self-employment status.<sup>31</sup> To insure comparability across measures, the institutional variables have been rescaled into percentiles of the country sample: countries with the weakest institutions in the sample are located at the 1st percentile and those with the best are at the 99th. Across all three measures, support for a strong state role in redistributive programs for the median self-employed individual universally declines as institutional quality improves across all measures. The largest decline occurs with the informality index, with movement from the 1st to the 99th percentile resulting in a 35% decline in support for a strong state role in social policy. The decline for the Government Effectiveness and Rule of Law indices are more modest (15% and 19% respectively) but still substantial. Such effects are substantively very large, with even shorter movements (such as between the 50th and 75th percentile) generating effects between 6% and 10%. By contrast Rehm (2009)'s micro-level study estimates effects along the magnitude of 3% to 6% effects for income and occupational unemployment along similar ranges. For the median non-self employed individual, by contrast, predicted probabilities of support for social policy have no clear relationship with institutional quality. The predicted probability stays mostly flat for the Government Effectiveness Index, declines modestly for the Rule of Law Index, and declines for the Schneider measure. Crucially, however, for all three measures the selfemployed and non self-employed have similar preferences when institutions are weak. The 95% confidence intervals for these groups overlap below the 25th percentile of institutional quality, but diverge above it as self-employed individuals become less likely to support a strong state role in social policy than the non-self-employed. These substantive effects therefore conform nicely to the expecations of the "enabler" hypothesis  $(H_2)$ .

The remaining models in Table 1 test the conditional effect of two additional measures of the ability to evade taxes – working in a sector associated with tax evasion (Models 1.4 - 1.6) and professional occupation (Models 1.7 – 1.9) – on support for a strong state role in social policy. The main effect of being in an evasive sector is not significant at conventional levels in any of

<sup>&</sup>lt;sup>31</sup>Predicted probabilities are generated using a quasi-Bayesian approach in which all variables are set to their means (for continuous variables), median (for ordinal variables), or modes (for dummy variables) and 1000 random draws are taken based on the parameters in each of the models.

the specifications in Table 1, although the sign is negative as expected. This may be due to the extremely small number of such individuals in the sample (6%) or due to the imprecise nature of the measure. By contrast, the dummy variable for professionals is significant and negative, as expected. With respect to the interactions of interest, in both cases, the results mirror those for the self-employed. The interaction between working in a sector associated with tax evasion and the measures of institutional quality are negative and significant in all cases. Similarly, the main effect of the professional dummy is both negative and significant at conventional levels. In both cases, these results are consistent with the "enabler" hypothesis  $(H_2)$ .

Figures 4 and 5 illustrate the substantive effects of Models 1.4 - 1.6 and Models 1.7 - 1.9, respectively. As with Figure 3, figure 5 indicates that the preferences of professionals and the median individual are statistically indistinguishable at low levels of institutional quality. Their preferences diverge as institutional quality improves, however, with the preferences of professionals declining more steeply. A similar pattern holds for individuals associated with sectors with facility in evading taxes (table 4), although the results are worth discussing in more depth because they are a bit different from those of the other two measures. At levels of institutional quality below the 25th percentile for most measures of institutions, the median individual in an evasive sectors appears much more likely to support social policy than her counterpart in the general populace. The confidence intervals for predictions of support for social policy for these groups overlap for most measures between the 25th and 62nd percentile, after which the general populace is most supportive of social policy, this contrasts with self-employed and professionals, whose support for social policy is indistinguishable from that of the general populace at low levels of institutional quality and diverge as institutional quality decreases. Likely, this may have to do with the fact that in this sample, this group is a mix of self-employed (42%) and mostly low wage service sector workers. As a consequence, the measure may be a bit noisier than the other two. Regardless, on the whole both of these figures provide additional evidence in support of the "enabler" hypothesis  $(H_2)$ .

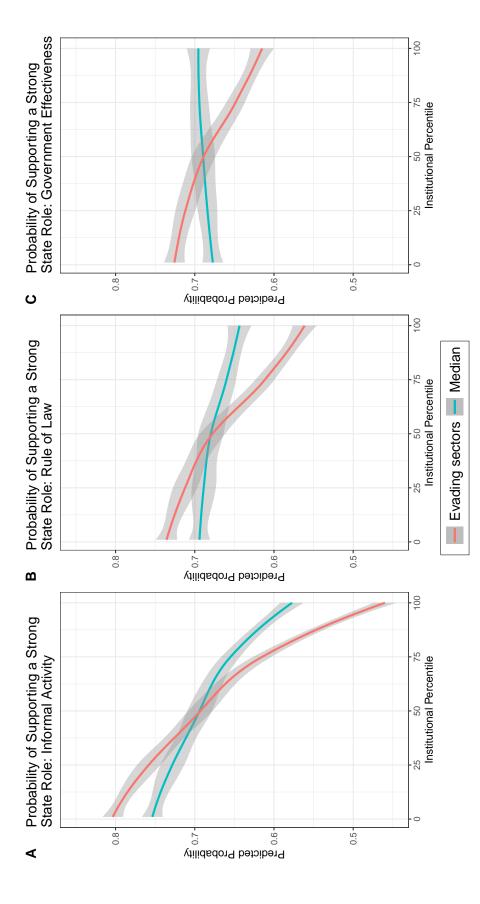


Figure 4: Substantive Effects of Being in an Evasive Sector at Different Levels of Institutional Quality

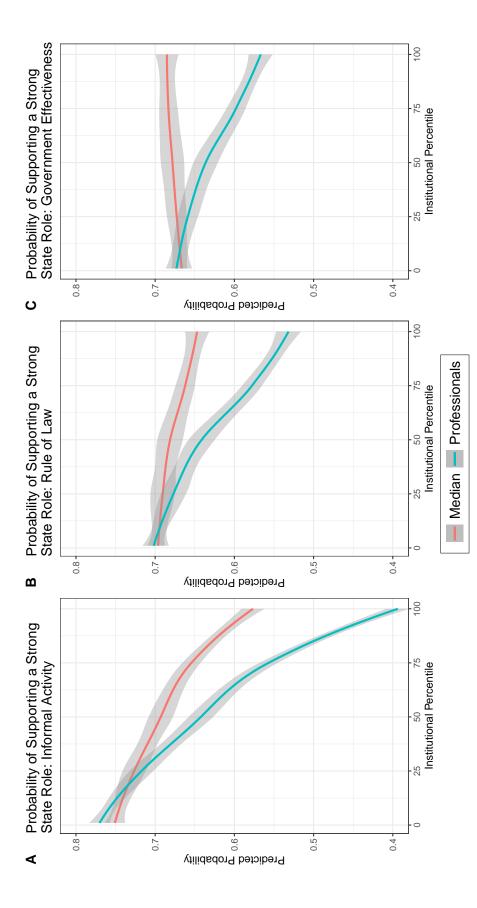


Figure 5: Substantive Effects of Being a Professional at Different Levels of Institutional Quality

#### 4.1 Robustness checks

Although the results of the previous section provide some support for the argument that individuals with facility in evading taxes are more likely to support redistributive social policy in settings with weak institutions (where they are more likely to get away with evasion), a number of potential concerns remain. This section attempts to address these with additional tests. All results described here are available upon request and will be provided in a supplementary appendix in the next version of this paper. One of the most important remaining concerns is that the observed cross-level interactions are spurious correlations induced by the omission of variables that condition both institutional quality (at the macro-level) and preferences for social policy (at the micro-level). One potentially powerful explanation that has emerged in the literature on post-communist countries is the pace of economic reform, which profoundly shaped the returns to human capital and the economy broadly (Brainerd, 1998, Earle and Sakova, 2000, Svejnar, 1999) and is also highly correlated with institutional quality (Frye, 2010, Gehlbach, 2008). To account for this possibility, I also introduced several variables created by the EBRD to evaluate the pace of economic reform in the transition economies into my main specifications (EBRD, 2012). The EBRD's indices of economic reform include measures of the extent of large and small-scale privatization, the extent to which the government has passed and enforces anti-monopoly legislation and has lowered barriers to business entry, and price liberalization. As Table E.4 indicates, however, only the newly included variable measuring anti-monopoly reform is significant at conventional levels, with the result holding true for all specifications and all proxies for ease of tax evasion. Even after accounting for the reform process, however, results remain largely the same as the base specifications reported above, although the interaction between self-employment and the measure of formality now fails to reach conventional levels of significance.

A second potential explanation has to do with the historical legacies of Communism. At the macro-level, the legacies of communism had profound effects on the socio-economic structures of the post-communist states, the institutions adopted (and their quality), and subsequent reform (Easter, 2002, Gehlbach, 2008). At the micro-level, communist indoctrination might also play a role, inculcating Communist values such as class solidarity and preferences for a strong social safety net (Pop-Eleches and Tucker, 2017). In order to rule out the possibility that my results are

Tucker (2017) by introducing a variable into my main specification that measures the number of years individuals lived under Communist rule.<sup>32</sup> Intuitively, the longer individuals were exposed to Communist rule, the more likely they were to be socialized into its core doctrines and the more likely they are to prefer strong state intervention and a social safety net. Because Communist party membership is also an important channel of socialization, I also include a dummy variable equal to one if the individual was a member of the Communist party. As in Pop-Eleches and Tucker (2017), including these variables together results in only the Communist party membership variable being significant. Crucially, however, including these variables does not strongly alter the main results.

In addition to the tests noted above, I also introduced a number of additional country-level variables into my main specifications. Specifically, I checked the robustness of the main results to including a measure of inequality (GINI index), resource rents as a percentage of GDP, and government expenditures as a percentage GDP.<sup>33</sup> None of these additions substantially alter the main results. In unreported specifications, I also check whether non-linearities between the main variables of interest at the individual level and these additional macro-level results could be driving the observed relationships.<sup>34</sup> Again, results are robust to all of these permutations. In unreported regressions I also explored whether the construction of macro-level variables made a difference in the results. Use of 2006 values (the year before the survey was conducted) of the institutional variables or averages taken over the full post-communist period make little difference, although the Schneider, et al. (2010) measure drops slightly below conventional significance levels in all specifications when these permutations are used.<sup>35</sup>

Another major concern has to do with the interpretation of my main independent variables of interest. My identification strategy rests on the argument that the self-employed, those in evasive sectors, and professionals all have comparative advantages in evading taxes due to their ability to hide economic activity and transactions from the authorities. Under conditions of weak institutional quality, they can take advantage of the weakness of the state to use this advantage and

<sup>&</sup>lt;sup>32</sup>For comparability I use Pop-Eleches and Tucker (2017)'s historical data on the beginning year of Communist regimes.

<sup>&</sup>lt;sup>33</sup>All data obtained from the World Bank.

<sup>&</sup>lt;sup>34</sup>These specifications are available upon request.

<sup>&</sup>lt;sup>35</sup>These specifications are also available upon request.

free-ride on social policy, thus making social policy more attractive. An emerging body of work on social policy preferences in Latin America instead suggests that these groups are more likely to be motivated by concerns over income volatility. Pointing to the effects of deindustrialization in Latin America (Carnes and Mares, 2014) argue that shifts of workers from permanent, indefinite employment into self-employed, heterogenous tertiary sector employment or temporary contracts degraded the employment security of workers. For workers in the informal sector, particularly, this employment insecurity was a powerful driver of support for non-contributory social policies as an insurance mechanism (Carnes and Mares, 2015). Consequently, the effects observed in this paper may be due to employment insecurity, rather than the free-riding mechanism postulated.

In order to account for this possibility, I deploy two main strategies. First, the comparison of the self-employed, those in the evasive sectors, and professionals to both the overall sample population and to the employed population within each country presented in section 3.1 suggests that these groups are actually better off than the average person. In all three cases, respondents tended to be better educated, higher income, and to have been subject to firing at approximately the same rates as the general populace or the subset of the employed. This suggests that these groups play a fundamentally different role in the post-communist sample examined in this paper than in Latin America, consistent with literature emphasizing that these groups were particularly well-positioned to profit from the transition away from Communist planned economies (Brainerd, 1998, Earle and Sakova, 2000, Milanovic, 1999, Svejnar, 1999). Second, however, I also carried out a series of robustness checks designed to directly control for the precariousness of individuals' economic situation in my main specifications. Unfortunately, LiTS 2006 does not include direct questions on job security, which would be the most straightforward test of the precariousness interpretation. As an alternative, I instead make use of of battery of questions on individuals' experience of economic hardships since the collapse of Communism, which ask individuals about the number of years in which individuals faced cuts in their food consumption or wages, had to sell assets to make ends meet, or where unemployed. Intuitively, individuals who experienced these events in the past are more likely to be in precarious positions in the present. Introducing these variables had no effect on the main results. This suggests that the conditional relationship between institutional quality and my three proxies for individual level ease of tax evasion is not a result of the precariousness of individuals with those characteristics but of their increasing ability

to free-ride.

Another, individual level concern has to do with the role of ideology in preferences for social policy, a key channel by which communist legacies may have shaped subsequent support for social policy in my sample. To account for a wider range of ideological determinants related to potential Communist ideology, I also introduced specifications with two additional measures of ideology: support for planned economies and support (without references to the state) for general redistribution. These additions did not alter the main results. Finally, in unreported specifications, I also checked whether my results were robust to alternative modeling strategies: traditional OLS, Logit, and Ordered Logit models, as well as Multi-level Hierarchical OLS and Ordered Logit models. None of these permutations substantially altered the results.

#### 5 Conclusions

This paper has sought to examine whether there is a link between institutional quality and support for social policy by focusing on a specific, and pervasive, pathology of poor institutions: tax evasion. The central argument developed in the paper is that in settings with weak institutions, government officials have few incentives to expend large amounts of time and treasure to uniformly audit society and insure all citizens comply with their tax obligations. As a consequence, individuals with characteristics that enable them to hide economic activity and transactions for authorities are less likely to be caught doing so in such settings. With respect to social policy, this enables such individuals to free-ride on the contributions of others by collecting benefits while avoiding taxes, thus making redistributive social policies a more attractive value proposition. The implication of this is that poor institutions act as enablers of free-riding. The paper then tests an observable implication of this theory, the "enabler" hypothesis: as institutional quality declines, individuals that are more difficult for the state to monitor should be more supportive of social policy.

I tested this argument using survey data from the post-communist countries, where individual-level correlates of tax evasion are relatively well understood and institutional quality varies greatly. The findings (and subsequent robustness checks on them) suggest that as institutional quality declines, individuals with characteristics that confer a comparative advantage in tax evasion become

more supportive of social policy, unlike the broader population. Substantively, the results indicate that these groups favor social policy at about the same rate as the general populace when institutions are poor, but that a preference cleavages opens up between these groups and the rest of the population as institutional quality improves and tax evasion becomes more difficult. Moreover, simulations suggest that the extent to which institutions shape preferences is on par with the magnitude of other important effects such as income. At the same time, there is little evidence that institutions shape preferences for social policy for the average member of the population, although this may be due to issues with the number of countries included.

More broadly, this paper has three important implications for work on social policy preferences in the developing world and for political economy more broadly. First, this paper joins a growing body of work that suggests that much of the important variation in support for social policy comes from the interaction of individual level characteristics with those of their macro-level environment (Berens, 2015, Finseraas, 2008, Rueda and Stegmueller, 2016). Like these studies, this paper provides evidence that the context in which individuals are embedded shapes how their individual characteristics map to particular incentives vis-a-vis social protection. In doing so, it joins this body of work in suggesting that a new answer to the old puzzle of why some individuals support social policy irrespective of their income or wealth has to do with the broader context they live in. Specifically, this paper suggests that where income is correlated with individual characteristics that enable individuals to hide their economic activity, and the institutional context enables them to get away with it, the cost-benefit calculations of the welfare state shift substantially in favor of support for state-led social policies. Other contextual features may also alter the cost-benefit calculations of those with high income or extreme wealth, thus making it important for future work to think more carefully about the conditions under which these groups actually pay for the welfare state. Similarly, a fruitful direction for future work might be to examine how contextual factors (particularly institutions) shape how other individual characteristics long associated with support for social policy – gender, education, risk profiles – map to actual preferences.

Second, this paper also suggests the need for work on micro-level preferences and political opinion to pay more careful attention to the winners and losers of institutions. While this insight is not particularly new for the literature on political economy (Gehlbach, 2008, Haber, Maurer, and

Razo, 2003, Hellman, 1998), work on preferences for social policy has not taken it as seriously and instead treated poor institutions as a dead-weight drain on state revenue and individuals' benefits. This paper suggests that weak institutions create opportunities for individuals who are difficult for the state to monitor to engage in tax evasion with a lower chance of being caught, by contrast to similar individuals in settings with better institutions. Thus, those with a comparative advantage in tax evasion are winners from a very specific pathology of poor institutions: the inability of the state to force its officials to exert effort to insure uniform tax compliance. This is not the only pathology of poor institutions, however. Settings in which the government cannot be constrained are rife with corruption, expropriation, policy inconsistency, and other negative consequences. The winners of these pathologies, and the ways in which they can take advantage of them with respect to social policy, are likely to differ greatly. In some cases these pathologies may act as enablers for specific populations (as with tax evasion), while in other cases they may impose disproportionate costs on a specific sub-set of individuals. Consequently, future work should look more broadly at other consequences of poor institutions in order to ascertain how they shape the preferences of specific segments of the populace. Doing so can potentially reveal surprising pockets of support (or opposition) to the welfare state and help to better understand both the social cleavages that motivate debates about social policy outside the developed world and welfare state outcomes more broadly.

Finally, with respect to the broader literature on the political economy of institutions, this paper suggests the potential pitfalls of assuming a narrow, class cleavage driven view of politics. Redistributive pressures on the rich (and the desire to end them) are widely viewed as one of the major animating features behind regime transitions (Acemoglu and Robinson, 2006). Although authoritarianism and weak institutions are not the same, they tend to be tightly correlated empirically. To the extent they are, however, this paper provides micro-foundational evidence that the preferences of key high-income groups that professionals and entrepreneurs do not necessarily diverge from those of the general populace. Consistent with Boix (2003)'s seminal argument, these groups are perfectly supportive of state-led social policy when poor institutions enable them to avoid paying for these policies. Consequently, it is not always the case that high income ruling elites face a trade-off between retaining support from these groups and buying further support from the poor through redistribution. This in turn suggests that the willingness of some authoritarian regime to

engage in systematic social transfers, and the relative stability that such strategies generate, may be partially due to the fact that key groups that would normally oppose such transfers entrepreneurs and professionals in particular have preferences similar to the average population and do not object. It also suggests that those high-income groups that can evade taxes do not necessarily lose when a transition to democracy enables the poor to impose redistributive systems upon them, so long as institutional quality remains low. Taken together, this suggests that future work on regime transitions from a political economy perspective must therefore pay more careful attention to the interaction of regime type, institutional quality, and individuals' expectations about the costs and benefits of redistribution.

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Table 1: Preferences for Social Policy and Institutional Quality

-	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Main Predictors of Interest									
Self-employed	-0.268***	-0.236***	-0.236***	-0.185***	-0.125**	-0.125**	-0.163***	-0.107*	-0.107*
* *	(0.100)	(0.087)	(0.087)	(0.060)	(0.055)	(0.055)	(0.060)	(0.055)	(0.055)
Formality (S. Index)	-0.015		, ,	-0.015	, ,	, ,	-0.015	,	, ,
•	(0.013)			(0.013)			(0.013)		
Formality x Self-employed	-0.013*			(/			()		
1 3	(0.008)								
Government Effectiveness	(,	0.038			0.037			0.031	
		(0.341)			(0.339)			(0.338)	
Gov. Effect x Self-employed		-0.234**			(0.000)			(31223)	
1 . 3		(0.092)							
Rule of Law		()	-0.092			-0.094			-0.097
rule of Eur			(0.313)			(0.311)			(0.310)
RoL x Self-employed			-0.234**			(0.511)			(0.010)
noz a sen employed			(0.092)						
Evasive Sector			(0.052)	0.077	0.076	0.069			
Evasive Sector				(0.070)	(0.066)	(0.066)			
Formality x Evasive Sector				-0.016**	(0.000)	(0.000)			
Tormanty & Evasive Sector				(0.006)					
Gov. Effect x Evasive Sector				(0.000)	-0.240***				
Gov. Effect a Evasive Sector					(0.089)				
RoL x Evasive Sector					(0.009)	-0.230***			
ROL X Evasive Sector						(0.087)			
Professional						(0.087)	-0.219***	-0.193***	-0.193***
Fiolessional							(0.078)	(0.074)	(0.074)
Formality x Professional							-0.016**	(0.074)	(0.074)
Formanty x Professional							(0.006)		
C Ess t D s : 1							(0.006)	0.221***	
Gov. Effect x Professional								-0.221***	
								(0.074)	0.2204444
RoL x Professional									-0.220***
	0.000	0.505	0.502	0.121	0.610	0.521	0.140	0.625	(0.074)
Constant	0.098	0.597	0.503	0.131	0.619	0.521	0.148	0.625	0.529
	(0.749)	(0.733)	(0.754)	(0.747)	(0.729)	(0.749)	(0.747)	(0.727)	(0.747)
Random Effects Parameters									
Var (constant)	0.571	0.596	0.595	0.570	0.593	0.591	0.570	0.591	0.589
	0.086	0.086	0.086	0.086	0.086	0.085	0.086	0.085	0.085
Individual Level Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country Level Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N (individuals)	22811.000	24809.000	24809.000	22811.000	24809.000	24809.000	22811.000	24809.000	24809.000
N (country)	23	25	25	23	25	25	23	25	25
$\chi^2$	744.053	770.463	770.523	776.388	791.319	790.986	717.273	736.626	736.646
log Likelihood	-13303.179	-14439.163	-14439.126	-13310.016	-14449.814	-14449.897	-13295.055	-14433.784	-14433.740
BIC	26837.162	29111.062	29110.988	26860.872	29142.482	29142.650	26830.950	29110.424	29110.335
Standard errors in parentheses.	Full results i	ncluding all co	ontrols are rer	orted in Table	D 3				

Standard errors in parentheses. Full results, including all controls, are reported in Table D.3. \* p < 0.10, \*\* p < 0.05, \* p < 0.01 Note: Schneider Informality measure is missing for Bosnia, Serbia, Montenegro, and Uzbekistan.

## **A** Appendix: Variable Descriptions and Summary Statistics

Table A.1: Variable Descriptions and Summary Statistics

Variable Name	Variable Description	Mean	Std.	Min.	Max	N
	Dependent Variable					
Preferences for a	Do you think the state should be involved in the following: reducing the gap	2.65	0.564	1	3	28991
State Role in Re-	between the rich and the poor? (1) Not involved (2) Moderately involved or (3)					
distribution	Strongly involved in reducing the gap between the rich and the poor.					
	Demographic Controls					
Age	Respondent age	46.516	17.722	17	97	29000
Household size	Number of Reported Household members not counting the respondent.	1.022	0.803	0	5.5	29002
Gender	(1) Male (0) Female	0.415	0.493	0	1	29002
Minority status	Do you consider yourself as a member of an ethnic minority in this country? (0)	0.107	0.308	0	1	28976
	No (1) Yes					
Self-reported	How would you assess your health? (1) very good; (2) good; (3) medium; (4)	1.721	0.996	0	4	28998
Health	bad; (5) very bad.					
	Economic and Ideological Controls					
Respondent edu-	What is the highest degree you obtained? (1) no degree/education (2) com-	1.435	1.05	0	3	28995
cation	pulsory school education (3) secondary education (4) professional; vocational					
	school/training (5) higher professional degree (University) (6) Post Graduate De-					
	gree					
Consumption	Country specific consumption deciles constructed by EBRD. Underlying con-	5.499	2.873	1	10	29002
Decile	sumption variable was calculated using annualized consumption expenditure per					
	(equalized) household member; with children under 14 entering with a weight of					
	0.3.					
Wage earning	In the past 15 years or so our country has undergone many major changes. Peo-	6.823	6.895	0	18	29008
years	ples lives have been affected in different ways. I would like to inquire how tran-					
	sition has affected your work trajectory and your life in general: Years worke for					
	wages (for an employer) 1989-2006					
Retired	For respondents who report they are not working: What is the main reason you	0.236	0.425	0	1	29002
	are not looking for a job: Retired and no working? (0) No (1) Yes					
Unemployed	For individuals who report not having worked in the last 7 days: Even though	0.461	0.499	0	1	29007
	you did not work during the past 7 days, do you have a job which you will return					
	to? (0) Yes (1) No					
Attitudes towards	In your opinion, what should be done with most privatised companies? (0) Left in	0.466	0.499	0	1	28797
reprivatization	the hands of the current owners with no change or Left in the hands of the current					
-	owners provided they pay what they are worth (1) Re Nationalise and kept in					
	state hands or Re Nationalise and then re-privatise again using more transparent					
	processes					

Table A.1: Variable Descriptions and Summary Statistics

Variable Name	Variable Description	Mean	Std.	Min.	Max	N
	Evasion					
Self-employed	In this job (current job) do you work: As self employed or for a company you	0.082	0.275	0	1	29002
	partly or fully own? (0) No (1) Yes					
Low-visibility	In what industry did/do you do this job (current job)? (0) non-retail and con-	0.06	0.237	0	1	29008
sector	struction industry (1) retail or construction					
Professionals	Dummy variable equal to one if respondent is working as a legislator; senior gov-	0.108	0.340	0	1	290002
(high skill, low	ernment official; enterprise manager; director/chief executive; business owner;					
paperwork)	physicist; engineer; mathematician; architect; computing professional; medical					
	doctor; dentist; pharmacist; teacher; lawyer; accountant; author; professional;					
	religious or similar profession.					
	Institutional quality					
Government Ef-	Index which aggregates various surveys, reports, and indices in order to mea-	-0.121	0.694	-1.47	1.038	26003
fectiveness	sure the quality of public and civil services, their degree of independence from					
	political pressure, the quality of policy implementation, and the state's ability to					
	credibly commit to policy (Kaufmann et al., 2010).					
Rule of Law	Index which aggregates various surveys, reports, and indices in order to mea-	-0.308	0.707	-1.31	0.858	26003
	sure confidence in social rules and the degree to which actors abide by them.					
	Particularly focuses on the quality of contract enforcement, judicial and law en-					
	forcement bodies, and likelihood of crime (Kaufmann et al., 2010).					
Formality	Inverse of Schneider, et al. (2010) Index. Index constructed using MIMIC	60.79	12.48	31.65	80.91	24002
	method to estimate size of unreported economic activity. See paper for further					
	details.					
	Country-level controls					
Social Policy In-	Please see Appendix C	28.86	5.005	16	36	25002
dex						
GDP per Capita	Average real GDP per capita in US dollars: 2000 – 2005 (EBRD 2009)					
Inequality	Average of available Gini-coefficient of inequality from 2000 – 2005. (WDI	32.904	3.873	25.5	41.717	25003
	2005)					
Expenditures	Average government expenditures as a percentage of GDP from 2000 – 2005					
	(EBRD 2009)					
Resource Rents	Average resource rents as a percentage of GDP from 2000 – 2005. (World Bank	9.366	18.03	0.156	166.2	26004
	Global Series)					

# B Appendix: Comparisons of Groups Likely to Evade Taxes With the General Population

This appendix provides some descriptive information about the three groups I claim can more easily evade taxes in the post-Communist setting as compared to the general population and the employed population of the LiTS Survey. As the table indicates, all three groups are on the whole younger, in a higher income decile, and more highly educated than both the general and employed populations of the survey. Although the self-employed and evasive sector employees are have been involuntarily fired at slightly higher rates than the population, the differences are small. By contrast, professionals had a lower average number of involuntary firings. Taken together, these findings suggest that these groups were not necessarily in more precarious positions than the average member of the populace, while also being more likely to benefit from the transition. This is in contrast to expectations about such groups from studies of Latin America that have focused on similar groups (Berens, 2015, Carnes and Mares, 2016, e.g.).

Table B.2: Characteristics of Groups Likely to Evade Taxes

	Full Sample	All Employed	Self-Employed	Evasive Sectors	Evasive occupation
Age	46.5	51.67	41.54	38.37	41.64
	(17.7)	(20.01)	(12.24)	(11.6)	(11.8)
Percentage Male	42	33.8	61	59	43
Education	Secondary	Secondary	Vocational (Post-secondary)	Vocational (Post-secondary)	Higher Education
Income Decile	5.49	4.76	6.59	6.51	7.31
	(2.87)	(2.78)	(2.84)	(2.67)	(2.48)
Involuntary Firings	0.21	0.22	0.23	0.25	0.1
	(0.51)	(0.51)	(0.52)	(0.62)	(0.37)

Note: Means are given for age, income decile, and number of involuntary firings. Median is given for education and percentage of males for gender.

### C Appendix: Social Policy Index

The social policy index is an updated version of the measure introduced in Mares (2005), which makes use of country legislation to code the scope of social policy coverage and the degree to which contributions and benefits are linked. Following Mares (2005), I focus on four types of social policies: old-age insurance, health-care insurance, work-related disability insurance, and unemployment insurance based on data supplies by Social Security Administration (2006). Intuitively, the index starts by assigning each country a score of 10, indicating social policy with no contribution-benefit link an full, universal coverage. Points are then deducted for each major occupational group that is excluded from social policy and based on the extent to which individuals are discriminated against based on actuarial criteria. The more discrimination, the tighter contributions and benefits are linked and the less redistribution across occupational groups and segments of the populace. Variation in contributions, benefits, or retirement age by occupational type are all regarded as discriminatory and lower scores accordingly, although income based discrimination does not result in a reduced score.<sup>36</sup> With respect to the major occupational groups, I follow Mares (2005) in focusing on a) agricultural workers b) the self-employed, and c) workers in small firms. Finally, it is important to note that many Post-communist countries have multi-tiered pension systems that combine a universal, flat rate pension with contributory systems. For these systems, I provide an average of the coded value of each pillar.

The specific criteria for assigning each social policy type a value on the index is:

- 10 Universalistic, solidaristic social policy for which all country residents are eligible.
- 9 Compulsory contributory insurance that covers all employed persons and all major occupational groups. Social policy is subsidized by the state and there is no discrimination in social policy benefits aside from income.
  - 8.5 As a 9, but without state subsidies.
- 8 Compulsory contributory insurance that covers all employed persons, but one major occupational group is excluded. Social policy is subsidized by the state and there is no discrimination

<sup>&</sup>lt;sup>36</sup>Results above are robust to alternative definitions of discrimination that focus solely on contributions and benefits, ignoring early retirement and other such considerations.

in social policy benefits aside from income.

- 7.5 As an 8, but without state subsidies.
- 7 Compulsory contributory insurance that covers all employed persons, but two or more major occupational group are excluded. Social policy is subsidized by the state and there is no discrimination in social policy benefits aside from income.
  - 6.5 As a 7, but without state subsidies.
- 6 Compulsory contributory insurance that covers all employed persons, but two or more major occupational group are excluded. Social policy must be subsidized. Risk-based discrimination in social policy benefits, contributions or retirement age exist.
  - 5.5 As a 6, but without state subsidies.
- 5 Privately managed social policy which covers at least 50% of the economically active population. No state subsidies are offered.
  - 4 Provident fund.
  - 3 Employer liability.
  - 2 Means-tested social assistance.
  - 1 Purely voluntary insurance or special systems, but only for narrow occupational groups.
  - 0 No social policy.

## D Appendix: Full Estimation Results for Main Specifications

The table below presents the full estimation results for the main specifications, including estimates for all individual and country level control variables.

Table D.3: Preferences for Social Policy and Institutional Quality

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Micro-Predictors									
Age	0.007***	0.007***	0.007***	0.007***	0.007***	0.007***	0.008***	0.007***	0.007***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Gender	-0.105***	-0.104***	-0.104***	-0.106***	-0.107***	-0.107***	-0.109***	-0.109***	-0.109***
	(0.031)	(0.030)	(0.030)	(0.031)	(0.030)	(0.030)	(0.031)	(0.030)	(0.030)
Secondary Education	-0.136***	-0.120***	-0.121***	-0.133***	-0.119***	-0.119***	-0.131***	-0.115**	-0.115**
	(0.048)	(0.046)	(0.046)	(0.048)	(0.046)	(0.046)	(0.048)	(0.046)	(0.046)
Associate Degree	-0.007	-0.007	-0.007	-0.010	-0.011	-0.011	-0.016	-0.016	-0.017
	(0.047)	(0.045)	(0.045)	(0.047)	(0.045)	(0.045)	(0.047)	(0.045)	(0.045)
Higher Education	-0.235***	-0.236***	-0.236***	-0.235***	-0.239***	-0.239***	-0.172***	-0.178***	-0.178***
	(0.053)	(0.051)	(0.051)	(0.053)	(0.051)	(0.051)	(0.056)	(0.055)	(0.055)
Household Size	0.027	0.031	0.031	0.027	0.030	0.030	0.027	0.031	0.031
	(0.024)	(0.022)	(0.022)	(0.024)	(0.022)	(0.022)	(0.024)	(0.022)	(0.022)
Income Decile	-0.023***	-0.021***	-0.021***	-0.024***	-0.022***	-0.022***	-0.023***	-0.021***	-0.021***
	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)
Employed	-0.120***	-0.099***	-0.099***	-0.121***	-0.097**	-0.098**	-0.093**	-0.072*	-0.072*
	(0.040)	(0.038)	(0.038)	(0.041)	(0.039)	(0.039)	(0.041)	(0.039)	(0.039)
Non-working Pensioner	-0.074	-0.046	-0.046	-0.068	-0.039	-0.039	-0.088	-0.058	-0.058
	(0.060)	(0.057)	(0.057)	(0.060)	(0.057)	(0.057)	(0.060)	(0.057)	(0.057)
Health Assessment	0.129***	0.124***	0.124***	0.126***	0.122***	0.122***	0.126***	0.121***	0.121***
	(0.019)	(0.018)	(0.018)	(0.019)	(0.018)	(0.018)	(0.019)	(0.018)	(0.018)
Minority	0.002	-0.014	-0.014	0.005	-0.015	-0.015	0.001	-0.017	-0.017
	(0.050)	(0.048)	(0.048)	(0.050)	(0.048)	(0.048)	(0.050)	(0.048)	(0.048)
Urban	-0.151***	-0.126***	-0.127***	-0.145***	-0.123***	-0.123***	-0.146***	-0.125***	-0.125***
	(0.044)	(0.042)	(0.042)	(0.044)	(0.042)	(0.042)	(0.044)	(0.042)	(0.042)
Rural	-0.120***	-0.106**	-0.107**	-0.112**	-0.099**	-0.099**	-0.113**	-0.101**	-0.101**
	(0.045)	(0.043)	(0.043)	(0.044)	(0.043)	(0.043)	(0.045)	(0.043)	(0.043)
Opposition to Reprivatization	0.521***	0.521***	0.521***	0.525***	0.527***	0.526***	0.519***	0.522***	0.522***
	(0.031)	(0.030)	(0.030)	(0.031)	(0.030)	(0.030)	(0.031)	(0.030)	(0.030)
Number of Involuntary Firings	0.027	0.017	0.017	0.032	0.021	0.021	0.026	0.015	0.015
	(0.030)	(0.029)	(0.029)	(0.030)	(0.029)	(0.029)	(0.030)	(0.029)	(0.029)
Macro-Predictors									
Log GDP per capita	0.030	-0.062	0.013	0.024	-0.071	0.004	0.033	-0.055	0.019
	(0.150)	(0.230)	(0.212)	(0.149)	(0.228)	(0.211)	(0.149)	(0.228)	(0.210)
Social Policy Index	0.010	-0.007	-0.004	0.008	-0.008	-0.005	0.007	-0.009	-0.006
	(0.025)	(0.025)	(0.025)	(0.025)	(0.025)	(0.025)	(0.025)	(0.025)	(0.025)

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Main Predictors of Interest									
Self-employed	-0.268***	-0.236***	-0.236***	-0.185***	-0.125**	-0.125**	-0.163***	-0.107*	-0.107*
	(0.100)	(0.087)	(0.087)	(0.060)	(0.055)	(0.055)	(0.060)	(0.055)	(0.055)
Formality (S. Index)	-0.015			-0.015			-0.015		
	(0.013)			(0.013)			(0.013)		
Formality x Self-employed	-0.013*								
	(0.008)								
Government Effectiveness		0.038			0.037			0.031	
		(0.341)			(0.339)			(0.338)	
Gov. Effect x Self-employed		-0.234**							
		(0.092)							
Rule of Law			-0.092			-0.094			-0.097
			(0.313)			(0.311)			(0.310)
RoL x Self-employed			-0.234**						
			(0.092)						
Evasive Sector				0.077	0.076	0.069			
				(0.070)	(0.066)	(0.066)			
Formality x Evasive Sector				-0.016**					
				(0.006)					
Gov. Effect x Evasive Sector					-0.240***				
					(0.089)				
RoL x Evasive Sector						-0.230***			
						(0.087)			
Professional						(,	-0.219***	-0.193***	-0.193***
							(0.078)	(0.074)	(0.074)
Formality x Professional							-0.016**	, , , , , , , , , , , , , , , , , , ,	(**** )
							(0.006)		
Gov. Effect x Professional							(0.000)	-0.221***	
Oo Enect x 1 Tolessional								(0.074)	
RoL x Professional								(0.074)	-0.220***
ROL X I Tolessional									(0.074)
Constant	0.098	0.597	0.503	0.131	0.619	0.521	0.148	0.625	0.529
Constant	(0.749)	(0.733)	(0.754)	(0.747)	(0.729)	(0.749)	(0.747)	(0.727)	(0.747)
Random Effects Parameters	(0.747)	(0.755)	(0.754)	(0.747)	(0.727)	(0.747)	(0.747)	(0.727)	(0.747)
Var (constant)	0.571	0.596	0.595	0.570	0.593	0.591	0.570	0.591	0.589
vai (constant)	0.086	0.086	0.086	0.086	0.086	0.085	0.086	0.085	0.085
N (individuals)	22811.000	24809.000	24809.000	22811.000	24809.000	24809.000	22811.000	24809.000	24809.000
N (country)	23	25	25	23	25	25	23	25	25
$\chi^2$	744.053	770.463	770.523	776.388	791.319	790.986	717.273	736.626	736.646
X log Liklihood	-13303.179	-14439.163	-14439.126	-13310.016	-14449.814	-14449.897	-13295.055	-14433.784	-14433.740
BIC	26837.162	29111.062	29110.988	26860.872	29142.482	29142.650	26830.950	29110.424	29110.335
DIC	20037.102	47111.004	47110.700	20000.872	27142.402	27142.03U	20030.930	2711U.424	47110.333

Standard errors in parentheses

Note: Schneider Informality measure is missing for Bosnia, Serbia, Montenegro, and Uzbekistan.

<sup>\*</sup> p < 0.10, \*\* p < 0.05, \* p < 0.01

#### **E** Appendix: Additional Macro-level Specifications

In this section, I present a series of additional robustness checks designed to verify whether the main results reported in Table 1 are due to spurious correlations induced by omitted country level variables. Table E.4 examines begins by examining whether the results are robust to omitted measures of economic reform in the post-Communist countries, which could shape returns to human capital and are correlated with reform. Table E.5 examines whether the results hold after accounting for the historical legacy of Communism, which varies across the country sample of the LiTS survey and again could condition both individual level preferences and latter day institutional quality. Here, individuals' exposure to Communism (i.e. how long they lived under it) is examined, as is Communist party membership. Finally, in Table E.6 I also check if the results are robust to including measures of inequality (GINI), resource rents as a percentage of GDP, and government expenditures as a percentage of GDP. None of these permutations substantially alters the main results. Please see section 4.1 of the text, as well as Table A.1 for a more detailed description of the measures and the results.

Table E.4: Preferences for State-led Role In Redistribution - Economic Liberalization Controls

	(1)	(2)	(2)	(4)	(5)	(6)	(7)	(0)	(0)
C ( L C E D C	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Controls for Economic Reform	0.115	0.065	0.040	0.105	0.042	0.073	0.100	0.025	0.075
Large-scale Privatization Index	-0.115	-0.065	0.048	-0.105	-0.043	0.072	-0.100	-0.035	0.075
0 11 1 1 12 2 2 1 1	(0.311)	(0.236)	(0.232)	(0.311)	(0.236)	(0.232)	(0.316)	(0.240)	(0.236)
Small-scale Privatization Index	0.413	-0.048	0.194	0.379	-0.062	0.183	0.354	-0.069	0.166
	(0.403)	(0.423)	(0.394)	(0.403)	(0.424)	(0.395)	(0.410)	(0.431)	(0.401)
Competition Policy Index	-0.957***	-1.488***	-1.409***	-0.964***	-1.504***	-1.424***	-0.947***	-1.466***	-1.391***
	(0.332)	(0.355)	(0.375)	(0.332)	(0.356)	(0.376)	(0.338)	(0.362)	(0.381)
Price Liberalization Index	0.942	0.719**	0.573	0.950	0.668*	0.521	0.943	0.668*	0.527
	(0.669)	(0.354)	(0.349)	(0.669)	(0.354)	(0.350)	(0.681)	(0.360)	(0.355)
Main Predictors of Interest									
Self-employed	-0.209**	-0.183**	-0.183**	-0.132**	-0.075	-0.075	-0.114*	-0.062	-0.062
	(0.091)	(0.076)	(0.076)	(0.062)	(0.057)	(0.057)	(0.062)	(0.057)	(0.057)
Formality (S. Index)	-0.011			-0.010			-0.010		
, ,	(0.010)			(0.010)			(0.010)		
Formality x Self-employed	-0.007			(0.010)			(0.010)		
Tormunty x ben employed	(0.007)								
Government Effectiveness	(0.007)	0.894*			0.916*			0.876*	
Government Effectiveness									
G DEC - G IS 1 1		(0.471)			(0.473)			(0.481)	
Gov. Effect x Self-employed		-0.194**							
		(0.078)							
Rule of Law			0.483			0.499			0.477
			(0.363)			(0.365)			(0.370)
RoL x Self-employed			-0.193**						
			(0.078)						
Evasive Sector				0.080	0.081	0.074			
				(0.073)	(0.068)	(0.069)			
Formality x Evasive Sector				-0.015**	()	(0.00)			
Tormanty & Evasive Sector				(0.007)					
Gov. Effect x Evasive Sector				(0.007)	-0.233**				
Gov. Effect x Evasive Sector					(0.094)				
					(0.094)	0.222**			
RoL x Evasive Sector						-0.223**			
						(0.093)			
Professional							-0.220***	-0.191***	-0.191***
							(0.080)	(0.074)	(0.074)
Formality x Professional							-0.014**		
							(0.006)		
Gov. Effect x Professional							, ,	-0.205***	
								(0.074)	
RoL x Professional								(******)	-0.205***
and the second second									(0.074)
Constant	-0.846	-0.433	-0.491	-0.822	-0.424	-0.482	-0.783	-0.402	-0.456
Constant	(0.595)								
Dandam Effect B	(0.595)	(0.558)	(0.579)	(0.594)	(0.560)	(0.580)	(0.605)	(0.569)	(0.588)
Random Effects Parameters	0.201	0.275	0.200	0.201	0.276	0.201	0.200	0.202	0.207
Var (constant)	0.391	0.375	0.389	0.391	0.376	0.391	0.398	0.383	0.396
	0.062	0.057	0.059	0.062	0.057	0.059	0.063	0.058	0.060
Individual Level Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country Level Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N (individuals)	21812.000	23810.000	23810.000	21812.000	23810.000	23810.000	21812.000	23810.000	23810.000
N (country)									
$\chi^2$	685.378	722.278	718.589	703.484	727.949	724.148	649.452	680.407	677.079
log likelihood	-12681.914	-13814.253	-13815.074	-12682.060	-13817.903	-13818.890	-12670.080	-13804.870	-13805.617
BIC	25633.564	27900.609	27902.250	25643.845	27917.985	27919.960	25619.887	27891.921	27893.414
		_,,,,,,,,,,,,	_,,,02,200		_,,,,,,,,,	_,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		_,0,1,,21	_,0,0,1

Standard errors in parentheses. Additional controls included are identical to those from the main specification. 
\* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.05 .\*\*\* p < 0.01Note: Schneider Informality measure is missing for Bosnia, Serbia, Montenegro, and Uzbekistan.

Table E.5: Preferences for State-led Role In Redistribution - Exposure to Communism

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Communist Legacy Effects									
Exposure to Communism (years)	-0.003**	-0.002	-0.002	-0.004**	-0.002	-0.002	-0.003*	-0.002	-0.002
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Communist Party Member	0.147**	0.145**	0.145**	0.148**	0.147**	0.147**	0.142**	0.141**	0.141**
	(0.066)	(0.063)	(0.063)	(0.066)	(0.063)	(0.063)	(0.066)	(0.063)	(0.063)
Main Predictors of Interest									
Self-employed	-0.306***	-0.262***	-0.261***	-0.241***	-0.169***	-0.169***	-0.217***	-0.150***	-0.150***
	(0.100)	(0.090)	(0.090)	(0.062)	(0.057)	(0.057)	(0.062)	(0.057)	(0.057)
Formality (S. Index)	-0.022*			-0.021*			-0.021*		
	(0.012)			(0.012)			(0.012)		
Formality x Self-employed	-0.011								
	(0.008)								
Government Effectiveness		-0.439			-0.422			-0.416	
		(0.386)			(0.386)			(0.385)	
Gov. Effect x Self-employed		-0.203**							
		(0.098)							
Rule of Law			-0.462			-0.453			-0.446
			(0.329)			(0.328)			(0.328)
RoL x Self-employed			-0.203**						
• •			(0.098)						
Evasive Sector				0.059	0.062	0.054			
				(0.072)	(0.068)	(0.068)			
Formality x Evasive Sector				-0.014**	` /	` ′			
· · · · · · · · · · · · · · · · · · ·				(0.006)					
Gov. Effect x Evasive Sector				(01000)	-0.227**				
					(0.094)				
RoL x Evasive Sector					(0.051)	-0.216**			
Rob x Evasive Sector						(0.091)			
Professional						(0.0)1)	-0.199**	-0.164**	-0.164**
Toressionar							(0.080)	(0.073)	(0.073)
Formality x Professional							-0.016**	(0.073)	(0.073)
Formanty x Professional							(0.006)		
C Eff							(0.000)	-0.250***	
Gov. Effect x Professional									
								(0.076)	0.240***
RoL x Professional									-0.249***
	0.156	0.150	0.011	0.100	0.107	0.040	0.001	0.211	(0.076)
Constant	-0.156	0.153	0.011	-0.108	0.195	0.048	-0.081	0.211	0.069
D 1 700 . D .	(0.690)	(0.707)	(0.719)	(0.695)	(0.707)	(0.718)	(0.697)	(0.705)	(0.718)
Random Effects Parameters									0.44
Var (constant)	0.521	0.555	0.547	0.525	0.555	0.547	0.527	0.554	0.546
	0.081	0.082	0.081	0.081	0.082	0.081	0.082	0.082	0.081
Individual Level Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country Level Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N (individual)	21778.000	23772.000	23772.000	21778.000	23772.000	23772.000	21778.000	23772.000	23772.000
N (country)	22	24	24	22	24	24	22	24	24
$\chi^2$	725.582	747.041	747.730	760.068	771.285	771.746	708.099	729.648	730.365
log Likelihood	-12611.325	-13748.182	-13747.861	-12616.267	-13757.168	-13756.909	-12602.688	-13741.473	-13741.151
BIC	25472.366	27748.271	27747.629	25492.238	27776.319	27775.801	25465.080	27744.928	27744.286
Standard errors in parentheses. Additiona	al controle includ	led are identical t	o those from the	main anaaifiaatia	n .				

Standard errors in parentheses. Additional controls included are identical to those from the main specification.  $^*p < 0.10, ^{**}p < 0.05, ^{***}p < 0.01$  Note: Schneider Informality measure is missing for Bosnia, Serbia, Montenegro, and Uzbekistan.

Table E.6: Preferences for State-led Role In Redistribution - Additional Macro-level Controls

Additional Macro-level Controls	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	0.002	0.000	0.000	0.001	0.000	0.000	0.001	0.000	0.000
Resource Rents	0.002	-0.000	-0.000	0.001	0.000	0.000	0.001	0.000	0.000
Government Expenditures	(0.011) -0.025	(0.007) -0.030	(0.007) -0.030	(0.011) -0.025	(0.007) -0.028	(0.007) -0.029	(0.011) -0.025	(0.007) -0.029	(0.007) -0.029
Government Expenditures	(0.023)	(0.019)	(0.019)	(0.022)	(0.018)	(0.018)	(0.023)	(0.019)	(0.019)
Inequality (GINI)	0.022)	0.019)	0.019)	0.022)	0.025	0.026	0.022)	0.019)	0.019)
inequality (GIIVI)	(0.040)	(0.035)	(0.035)	(0.040)	(0.035)	(0.035)	(0.040)	(0.035)	(0.035)
Main Predictors of Interest	(0.040)	(0.055)	(0.055)	(0.040)	(0.055)	(0.055)	(0.040)	(0.055)	(0.033)
Self-employed	-0.268***	-0.243***	-0.243***	-0.185***	-0.126**	-0.125**	-0.163***	-0.109*	-0.109*
sen employed	(0.100)	(0.090)	(0.090)	(0.060)	(0.056)	(0.056)	(0.060)	(0.056)	(0.056)
Formality (S. Index)	-0.001	(41474)	(41474)	-0.002	(01000)	(01000)	-0.002	(01000)	(0.000)
, ,	(0.016)			(0.016)			(0.016)		
Formality x Self-employed	-0.013*			` ′			` ′		
, , ,	(0.008)								
Government Effectiveness		0.142			0.154			0.141	
		(0.336)			(0.334)			(0.336)	
Gov. Effect x Self-employed		-0.232**							
		(0.093)							
Rule of Law			0.113			0.121			0.110
			(0.320)			(0.318)			(0.320)
RoL x Self-employed			-0.232**						
			(0.093)						
Evasive Sector				0.077	0.098	0.094			
				(0.070)	(0.067)	(0.066)			
Formality x Evasive Sector				-0.016**					
				(0.006)					
Gov. Effect x Evasive Sector					-0.256***				
					(0.088)				
RoL x Evasive Sector						-0.253***			
						(0.087)			
Professional							-0.219***	-0.200***	-0.200***
							(0.078)	(0.075)	(0.075)
Formality x Professional							-0.016**		
G FG . P C . I							(0.006)	0.010***	
Gov. Effect x Professional								-0.219***	
D. I. D. C. : 1								(0.075)	0.210***
RoL x Professional									-0.218***
Constant	1.865	2.210	2.251	1.882	2.122	2.160	1.922	2.165	(0.075) 2.204
Constant	(1.656)						(1.656)		
Random Effects Parameters	(1.030)	(1.478)	(1.492)	(1.654)	(1.469)	(1.483)	(1.030)	(1.476)	(1.490)
Var (constant)	0.536	0.525	0.526	0.535	0.522	0.523	0.536	0.524	0.525
rai (constant)	0.081	0.078	0.078	0.081	0.077	0.077	0.081	0.078	0.078
Individual Level Controls	Yes								
Country Level Controls	Yes								
N (individuals)	22811.000	23811.000	23811.000	22811.000	23811.000	23811.000	22811.000	23811.000	23811.000
N (country)		20011.000	20011.000	22011.000	20011.000	20011.000		20011.000	25511.000
$\chi^2$	747.477	763.467	763.393	779.856	786.903	786.904	720.668	729.966	729.858
log likelihood	-13301.730	-13967.162	-13967.189	-13308.580	-13977.529	-13977.508	-13293.663	-13962.030	-13962.059
BIC	26864.371	28196.350	28196.404	26888.105	28227.161	28227.119	26858.272	28196.164	28196.222
Standard errors in parentheses. Additional									- · · · ·

Standard errors in parentheses. Additional controls included are identical to those from the main specification. \* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01 Note: Schneider Informality measure is missing for Bosnia, Serbia, Montenegro, and Uzbekistan.

### F Appendix: Additional Individual-level Robustness Checks

In this section, I present two robustness checks making use of individual-level data. Table F.7 checks whether the main results in Table 1 are robust to inclusion of proxies for individual economic insecurity, which are proxied for using data on the number of years in which individuals faced food consumption cuts, wage cuts, had to sell assets to make ends meet, or where unemployed. Table F.8 includes additional variables measuring individuals' ideological affinity for state intervention by including variables that capture individuals' support for the planned economy and for redistribution generally (as opposed to state-led redistribution). Neither substantially alters my main results. More details on the logic behind these tests can be found in Section 4.1, while descriptions of the variables can be found in Table A.1.

Table F.7: Preferences for State-led Role In Redistribution - Additional Hardship Controls

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<b>Hardships During the Transition</b>									
Sum Yrs. Assets Sold	-0.041**	-0.031**	-0.031**	-0.043***	-0.031**	-0.031**	-0.042***	-0.031**	-0.031**
	(0.016)	(0.015)	(0.015)	(0.016)	(0.015)	(0.015)	(0.016)	(0.015)	(0.015)
Sum Yrs. Food Cut	0.021***	0.022***	0.022***	0.022***	0.022***	0.022***	0.022***	0.023***	0.023***
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
Sum Yrs. Wages Earned	0.004	0.003	0.003	0.005	0.004	0.004	0.005*	0.005	0.005
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Sum Yrs. Wages Cut	0.015	0.012	0.012	0.015	0.012	0.012	0.013	0.011	0.011
	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)
Main Predictors of Interest									
Self-employed	-0.233**	-0.210**	-0.210**	-0.150**	-0.095	-0.095	-0.124*	-0.074	-0.074
	(0.100)	(0.088)	(0.088)	(0.063)	(0.058)	(0.058)	(0.063)	(0.058)	(0.058)
Formality (S. Index)	-0.015			-0.015			-0.014		
	(0.013)			(0.013)			(0.013)		
Formality x Self-employed	-0.013								
	(0.008)	0.054							
Government Effectiveness		0.054			0.055			0.050	
		(0.342)			(0.340)			(0.340)	
Gov. Effect x Self-employed		-0.233***							
D. I. CI		(0.090)	0.070			0.071			0.072
Rule of Law			-0.070			-0.071			-0.073
D-I C-161			(0.314)			(0.312)			(0.312)
RoL x Self-employed			-0.232***						
F ' C '			(0.090)	0.076	0.074	0.067			
Evasive Sector				0.076	0.074	0.067			
E				(0.070) -0.016***	(0.066)	(0.066)			
Formality x Evasive Sector				(0.006)					
Cov. Effect v. Evenive Sector				(0.000)	-0.244***				
Gov. Effect x Evasive Sector					(0.089)				
RoL x Evasive Sector					(0.069)	-0.234***			
KOL X EVASIVE SECIOI						(0.087)			
Professional						(0.087)	-0.225***	-0.195***	-0.195***
Trocessional							(0.079)	(0.074)	(0.074)
Formality x Professional							-0.016**	(0.074)	(0.074)
Tormanty x 1 rolessional							(0.006)		
Gov. Effect x Professional							(0.000)	-0.224***	
Gov. Effect & Professional								(0.075)	
RoL x Professional								(0.073)	-0.224***
ROL A I Totessional									(0.075)
Constant	0.101	0.592	0.506	0.135	0.620	0.530	0.156	0.629	0.543
Constant	(0.755)	(0.736)	(0.757)	(0.755)	(0.732)	(0.753)	(0.755)	(0.730)	(0.751)
Random Effects Parameters	(0.755)	(0.730)	(0.737)	(0.755)	(0.732)	(0.755)	(0.733)	(0.750)	(0.751)
Var (constant)	0.576	0.598	0.598	0.576	0.595	0.594	0.576	0.593	0.593
vai (constant)	0.087	0.086	0.086	0.087	0.086	0.086	0.087	0.086	0.086
Individual Level Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country Level Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N (individuals)	22811.000	24809.000	24809.000	22811.000	24809.000	24809.000	22811.000	24809.000	24809.000
N (country)	23	25	25	23	25	25	23	25	25
$\chi^2$	774.043	803.406		58 <sub>807.562</sub>	824.272	824.044	748.508	770.564	770.531
X log likelihood	-13285.675	-14420.030	-14420.017	-13291.494	-14430.019	-14430.083	-13276.270	-14413.468	-14413.452
			/		1.100.017	1 . 150.005		1 . IIJ.TUU	J. TJ 4

Standard errors in parentheses. Additional controls included are identical to those from the main specification

Table F.8: Preferences for State-led Role In Redistribution - Additional Ideological Controls

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Ideological Controls									
Opposition to Reprivatization	0.452***	0.449***	0.449***	0.454***	0.452***	0.452***	0.450***	0.449***	0.449***
	(0.033)	(0.032)	(0.032)	(0.033)	(0.032)	(0.032)	(0.033)	(0.032)	(0.032)
Opposition to Redistribution	1.308***	1.305***	1.305***	1.306***	1.305***	1.305***	1.310***	1.308***	1.308***
	(0.042)	(0.040)	(0.040)	(0.042)	(0.040)	(0.040)	(0.042)	(0.040)	(0.040)
Support for the Plan	-0.089***	-0.080***	-0.080***	-0.089***	-0.080***	-0.080***	-0.087***	-0.079***	-0.078***
	(0.020)	(0.019)	(0.019)	(0.020)	(0.019)	(0.019)	(0.020)	(0.019)	(0.019)
Main Predictors of Interest									
Self-employed	-0.203**	-0.186**	-0.186**	-0.126**	-0.090	-0.090	-0.102	-0.071	-0.071
	(0.096)	(0.083)	(0.083)	(0.064)	(0.059)	(0.059)	(0.064)	(0.059)	(0.059)
Formality (S. Index)	-0.014			-0.015			-0.014		
	(0.012)			(0.012)			(0.012)		
Formality x Self-employed	-0.012								
	(0.008)								
Government Effectiveness		0.004			-0.000			-0.005	
		(0.328)			(0.325)			(0.326)	
Gov. Effect x Self-employed		-0.214**							
		(0.086)							
Rule of Law			-0.107			-0.112			-0.112
			(0.300)			(0.297)			(0.299)
RoL x Self-employed			-0.214**						
			(0.086)						
Evasive Sector				0.069	0.062	0.056			
				(0.066)	(0.064)	(0.064)			
Formality x Evasive Sector				-0.012**					
				(0.006)					
Gov. Effect x Evasive Sector					-0.174**				
					(0.086)				
RoL x Evasive Sector						-0.162*			
						(0.084)			
Professional							-0.250***	-0.221***	-0.221***
							(0.082)	(0.077)	(0.077)
Formality x Professional							-0.015**		
							(0.006)		
Gov. Effect x Professional								-0.213***	
								(0.077)	
RoL x Professional									-0.212***
									(0.077)
Constant	-0.703	-0.244	-0.334	-0.680	-0.234	-0.328	-0.653	-0.221	-0.309
	(0.725)	(0.708)	(0.727)	(0.719)	(0.701)	(0.720)	(0.725)	(0.705)	(0.723)
Random Effects Parameters									
Var (constant)	0.550	0.572	0.571	0.545	0.567	0.565	0.549	0.569	0.567
	0.083	0.083	0.083	0.082	0.082	0.082	0.083	0.083	0.082
Individual Level Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country Level Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N (individuals)	21927.000	23847.000	23847.000	21927.000	23847.000	23847.000	21927.000	23847.000	23847.000
N (country)	23	25	25	23	25	25	23	25	25
$\chi^2$	1605.084	1719.768	1719.883	<b>59</b> 8.719	1734.788	1734.616	1580.444	1691.124	1691.199
log likelihood	-12213.026	-13253.851	-13253.788	-12218.573	-13261.240	-13261.329	-12201.525	-13243.403	-13243.333
BIC	24675.939	26759.687	26759.561	24697.029	26784.545	26784.723	24662.932	26748.870	26748.731

Standard errors in parentheses. Additional controls included are identical to those from the main specification.

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